



An
Bord
Pleanála

Inspector's Report ABP 310367-21

Development	Solar Farm,
Location	Trascan and Clondoolusk, Co.Offaly
Planning Authority	Offaly County Council
Planning Authority Reg. Ref.	21/123
Applicant	Elgin Energy Services Ltd.
Type of Application	Permission
Planning Authority Decision	Grant subject to conditions
Type of Appeal	3 rd Party v. Grant
Appellants	Concerned Residents of Trascan/Clondoolusk
Observer(s)	None
Date of Site Inspection	16/05/21
Inspector	Pauline Fitzpatrick

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1.0 Site Location and Description

- 1.1.1. The site is located in the townlands of Tracsan and Clondoolusk approx. 3.3km to the east of Portarlington Co. Laois and c.3.6km to the west of Monasterevin Co. Kildare. The overall site has a stated area of 86.7 hectares and comprises of two parcels to the north and south of local road L7178.
- 1.1.2. The southern extent of the site is irregular in shape and comprises of a number of fields in agricultural use with the boundaries delineated by hedgerows. The topography is generally flat. A 110kV overhead power line crosses the site from east to west. The site extends up to a local road which forms the western boundary. There are a number of points where the site immediately bounds the L7178 to the north. One off housing ribbons along the local road to the west with a number of properties on the L7178 backing onto the site. A watercourse known as the Old Course of the River Barrow runs along the eastern boundary of the site which flows into the Black River c. 2km to the north-east.
- 1.1.3. The northern extent of the site is, again, comprised of a number of fields in agricultural use with the boundaries delineated by hedgerows. The topography is generally flat. An agricultural track forms the western most boundary with Derrylea Bog bounding the site to the north. A 2 storey dwelling which has frontage onto the L7178 is bounded by the site on three sides with a further 2 storey dwelling and stables immediately to the east of the said track.
- 1.1.4. The general area is characterised by agricultural lands with one off housing evident along the local road network.

2.0 Proposed Development

The proposal entails a solar farm which will export up to 60MW of power to the national grid. It will comprise of:

- Solar panels to be set approx. 0.6-0.8 metres above ground level increasing to a maximum height above ground level of approx. 3.5 metres
- 40 no. inverter/transformer stations
- Security fencing up to 2.45 metres in height

- 4 no. storage steel containers
- CCTV
- Gravel track
- Temporary construction compounds
- Landscaping and ancillary works

A permission for 10 years is sought with the operational lifespan of the solar farm being 40 years.

The application is accompanied by:

- Planning and Environmental Considerations Report (PECR) which includes a number of appendices including:
 - Outline Construction and Environmental Management Plan (Appendix D)
 - Flood Risk Assessment (Appendix E)
 - Construction Traffic During Solar Farm Construction (Appendix F)
 - Swept Path Analysis (Appendix I)
 - Traffic and Transportation Assessment (Appendix J)
 - Junction 9 PICADY Report (Appendix K)
 - Traffic Management Plan (Appendix L)
 - Glint and Glare Report (Appendix M)
 - Landscape and Visual Assessment (Appendix N)
 - Life Cycle Management and Recycling of PV systems (Appendix P)
- Booklet of Photomontages
- Natura Impact Statement
- Letters of consent from the respective landowners.

The said PECR includes comments on the further information and clarification of further information sought on a previous application for the above described development under ref. PL2/19/589 which was withdrawn on 11/02/21. It also

includes responses to observations/objections received on the said withdrawn application.

3.0 Planning Authority Decision

3.1. Decision

Grant permission for the above described development subject to 15 conditions. Of note:

Condition 2: 10 year permission and 40 year period of operation.

Condition 4: Permission not to be construed as any form of consent or agreement for connection to the national grid.

Condition 6: Landscaping requirements and (g) no changes to panels or increases in energy generation capacity without prior written consent.

Condition 7: (a) submission of Invasive Species Management Plan

(b) Pre-construction survey of ecology to include measures to mitigate impacts.

Condition 8: (a) Submission of Traffic Management Plan.

(b) Pre-condition survey of delivery routes, bridges and culverts,

(c) following survey necessary upgrades to be carried out in advance of delivery operations.

(d) Post-construction survey and any damage to be repaired.

(i) the vehicular access to the site shall be restricted to one point.

Condition 9: (a) detailed programme of deliveries to be submitted

(b) Roads safety audits to be conducted.

Condition 10: (b) & (c) All mitigation measures in PECR and NIS to be implemented.

(d) Written approval from NPWS of proposed badger gate specifications and locations to be submitted. Clearance of 150mm to be provided for movement of mammals through the site.

(f) Noise emissions parameters at nearest noise sensitive locations.

Condition 12: PV panels to be positioned to ensure glint and glare does not impact on traffic safety.

Condition 15: Details of connection between area of the solar farm to the north and south of local road L-1006-1 (*sic*) to be submitted.

3.2. Planning Authority Reports

3.2.1. Planning Reports

The Area Planner's report (countersigned) notes:

- The site is in a low sensitivity area in terms of its landscape character.
- A significant portion of the site is in the 1:100 flood plain.
- Glint and glare is not likely to be a substantial nuisance.
- While it is considered that the proposed planting will impact on a large area altering parts of the landscape from views of fields to views of hedgerow, in the context of its rural location and development plan policy, the visual impacts are acceptable.
- While no significant impacts on ecology are likely it is considered that a pre-construction survey to include measures to mitigate impacts on ecology should be included given the potential gap between planning permission and the commencement of development.
- Other than the European site addressed in the AA no other sites are potentially within the zone of influence of the project.

A grant of permission subject to conditions recommended.

3.2.2. Other Technical Reports

Environment and Water Services has no objection subject to conditions.

Roads Section has no objection subject to conditions.

Chief Fire Officer notes that a Fire Safety Certificate will be required.

Area Engineer sets a schedule of conditions should permission be granted.

3.3. **Prescribed Bodies**

None.

3.4. **Third Party Observations**

Objections to the proposal received by the planning authority are on file for the Board's information. The issues raised are comparable to the matters set out in the 3rd party appeal summarised in section 6 below.

4.0 **Planning History**

PL2 19/589 – application for solar farm withdrawn.

ABP-304101-19 – In January 2021 the Board determined that the proposed 110kV substation and associated loop in infrastructure to tie into the existing 110kV overhead transmission to serve the proposed solar farm falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and is therefore strategic infrastructure within the meaning of the Act. A planning application to be made directly to the Board.

5.0 **Policy Context**

5.1. **National Policy**

5.1.1. ***National Planning Framework***

National Policy Objective 55 – promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.

5.1.2. ***National Renewable Energy Plan 2010***

The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and measures to deliver on Ireland's 16% target Directive 2009/28/EC. It states that the Government has set a target of 40% electricity consumption from renewable sources by 2020.

5.1.3. Strategy for Renewable Energy 2012-2020

The Strategy states that the Government's overriding energy policy objective is to ensure competitive, secure and sustainable energy for the economy and for society.

5.1.4. Adapting to Climate Change and Low Carbon Act 2015

This Act sets a statutory framework for the adoption of plans to ensure compliance with Ireland's commitments to European and international agreements on climate change. It commits to a carbon neutral situation by 2050 and to also match Ireland's targets with those of the EU. It requires that the Minister for Communications, Climate Action and the Environment make, and submit to Government, a series of successive National Mitigation Plans and National Adaptation Frameworks.

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

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

5.1.6. Draft Renewable Energy Policy and Development Framework 2016

The main principles of the Renewable Electricity Policy and Development Framework include:

- Maximise the sustainable use of renewable electricity resources in order to develop progressively more renewable electricity for the domestic and potential, future export markets.
- Assist in the achievement of targets for renewable energy, enhance security of energy supply and foster economic growth and employment opportunities.

5.1.7. Climate Action Plan, 2019

The plan stresses the importance of decarbonising electricity consumed by harnessing the significant renewable energy resources. Ensuring the building of renewable rather than fossil fuel generation capacity to help meet the projected growth in electricity demand is essential. Ensuring increased levels of renewable generation will require very substantial new infrastructure, including wind and solar farms, grid reinforcement, storage developments, and interconnection.

To meet the required level of emissions reduction, by 2030 it is required to increase electricity generated from renewable sources to 70% comprising of

- Up to 1.5 GW of grid-scale solar energy (indicative figure).

5.2. Regional Policy

5.2.1. *Eastern and Midland Regional Spatial and Economic Strategy 2019*

Section 10.3 – in the context of a move towards a more energy efficient society and an increase in renewable sources of energy, there is a need to set a policy approach which will address an increased demand for indigenous resources and increased security of supply.... To meet our energy targets we need to better leverage natural resources to increase our share of renewable energy. There is an established tradition of energy production in the Midland counties by state agencies, however national environmental policies are dictating the wind down of traditional fossil fuel powered stations, such as peal fired power plants in these counties.

5.3. Local Policy

5.3.1. *Offaly County Development Plan 2014-2020*

Policy RDP-08 – to support the development of renewable energy in rural areas, where it is considered appropriate ie. where it is demonstrated that such development will not result in significant environmental effects. Such development will be assessed on a case by case basis.

Policy EP-02 – to facilitate the continual development of renewable energy sources having regard to the proper planning and sustainable development of the area concerned, the protection of amenities, landscape sensitivities, European Sites, biodiversity, natural heritage and built heritage, and where such proposals comply with policies contained in the County Development Plan, in the interests of proper planning and sustainable development.

The site is within a Low Sensitivity Area (landscape character area).

5.4. Natural Heritage Designations

The southern extent of the site is approx. 155 metres to the north of the River Barrow and River Nore SAC.

6.0 The Appeal

6.1. Grounds of Appeal

The 3rd Party appeal against the planning authority's notification of decision to grant permission, which is accompanied by supporting documentation, can be summarised as follows:

6.1.1. Procedural Issues

- The planning authority processes and information availability during the application process has disadvantaged 3rd parties. The planning authority did not give due regard to the objections.
- There has been no public consultation.
- The site outlined in red is 91 hectares. The description refers to 86.7 hectares. The discrepancy is substantial. The fee paid falls short of that required. The file should have been invalidated.
- Project splitting arising with the substation to be subject of a separate application.
- The planning authority should have received all the necessary information rather than attaching conditions to the decision to grant permission. It should have had information on:
 - landscaping and plant screening vegetation
 - removal of invasive species
 - traffic management plan
 - upgrades to road structures and junctions and alterations to road widths
 - NPWS approval on the proposed badger gate specification and locations
 - delivery routes
 - report on glint and glare on traffic
 - ecology report

- The sourcing and manufacturing of the panels should be given due consideration.
- Lack of community gain.

6.1.2. **Planning Policy**

- There are no specific guidelines for solar farms.
- There is an absence of a plan-led approach to the location of solar farms with a haphazard and piecemeal approach to development.
- The proposal is premature pending national, regional and local planning guidelines.
- The onus should be on the applicant to demonstrate that the subject lands are an appropriate location from a strategic perspective in County Offaly.
- The emphasis should be on developing solar farms on previously developed and non-agricultural land. The loss of agricultural land has not been addressed.
- Potential impact on the quality of the soil and the ability to restore the lands back to agricultural use.

6.1.3. **Amenities of Property and Area**

- The size and scale of the proposal is excessive in such proximity to dwellings of which there are stated to be 66 no. within a 1km radius.
- Glint and glare arising on adjoining properties with no condition addressing same attached to the planning authority's notification of decision. As no solar farm has yet been constructed there is no precedent to quantify the impact.
- The visual impact on the dwellings in the area has not been adequately assessed. Green fields will be replaced with a grey, industrial looking landscape.
- The proposal would completely change the character and setting of the area.
- Use of deciduous species in the screening reduces the effectiveness of the screening.

- Potential visual impact from Lea Castle conservation project c. 1.4km to the south-west.
- The proposal would adversely impact property values.
- As no solar farm has yet been constructed there is no precedent to quantify the impact of noise from the inverter stations.
- The impact of the proposed development on horses in terms of noise, traffic and glint and glare needs to be addressed.
- The raising of the panels in the eastern section of the site arising from its location in a flood zone will have a visual impact which will have further impacts on dwellings adjoining. There is no actual visual representation of the development taking into account the topography of the site.
- The Board has refused permission for comparable development (examples given).
- A setback of 100 metres should be maintained to boundaries with increased screening by means of an accessible bio-diversity area.
- The landscaping plan is inadequate.
- Impacts of glint and glare on aircraft.

6.1.4. **Ecology**

Note: A peer review of the ecological information submitted with the application (report by Dr. Patrick Moran, Forest Environmental Research and Services Ltd.) is attached in Appendix 5 to the appeal submission.

- Environmental Assessment Study carried out is deficient and does not address the impact on the ecology and wildlife of the area.
- Whooper swans, bats, otters and cuckoo are present in the area (photos and video provided in support). No reference is made to red squirrel, curlew or pine martin.
- An Environmental Impact Study should have been required.
- There was an inadequate desktop study and failure of the said study to inform appropriate field studies.

- The field studies were inadequate.
- Token information is provided concerning protected fauna.
- As a consequence of the poor quality and quantity of data the identification of impacts is inadequate.
- The site is in an ecologically sensitive area adjacent to an internationally important ecological corridor.
- There has been a lack of due diligence as regards the determination of the biodiversity resource present on the site through robust, scientific and comprehensive assessment.
- There are critical flaws and significant lacunae within the reports accompanying the application.
- No attempt has been made to ascertain the usage of the habitats present by bats, no potential impacts as regards collisions were identified and no mitigation measures prescribed.
- A solar farm on the scale proposed in such close proximity to an ecological corridor of international importance has the potential to impact on bird species richness, bird species density and through collision related fatalities.
- No attempt has been made to comprehensively ascertain the usage of the habitats by avifauna (breeding and overwintering). No potential impact as regards collision was identified and no mitigation measures prescribed.
- The EIA screening and NIS are flawed.

6.1.5. **Traffic**

- The proposal will result in a high level of HGVs during the delivery and construction phases.
- The road network is not capable of accommodating the traffic.

6.1.6. **Flood Risk**

- The application has not adequately addressed potential indirect flooding in the area.

- The argument that rain water falling onto each panel will infiltrate the ground at the same rate as it does in the site's existing greenfield site is not sustained.

6.2. Applicant Response

The submission by Tobin Consulting Engineers on behalf of the applicant can be summarised as follows:

6.2.1. Procedural Issues

- The application was lodged with the planning authority on 11/03/21. The previous application under ref. 19/589 was withdrawn on 11/02/21.
- The applicant sought input to the project from local residents through an initial letter drop in September 2019.
- The full scope of works is considered and assessed. It recognises the associated transmission infrastructure including 110kV substation, underground grid connection and ancillary services and works.
- Solar farms are not a class of development listed in Parts 1 and 2 of Schedule 5 of the Planning and Development Regulations, 2001, as amended. On a precautionary basis the development has been screened against schedule 7 and 7A criteria.
- Details and consideration of the proposed transmission infrastructure are set out in the Planning and Environmental Considerations Report (PECR). the full scope of works is assessed in the EIA Screening Report and NIS.
- The substation is required to be subject to a separate planning application under section 182A of the Planning and Development Act, 2000.
- The total area within the red line boundary of the site is 87.98 hectares. On the removal of the site area proposed for the electricity transmission infrastructure the planning application site area is 86.7 ha. This is the figure as submitted with the application. There is no discrepancy.
- The conditions attached are considered standard and are in line with other approvals.

6.2.2. Visual Impact

- The glint and glare study concludes that it is unlikely that there will be any substantial nuisance or hazard reflectance experienced at any of the dwellings or the nearby roads. This takes account of varying heights of panels across the site. Section 1.6 of the report states that to account for this variation, the analysis used a median tilt of 20° so that any variation within the proposed range will be extremely subtle and never more than 5° from the assessed tilt angle.
- A Landscape and Visual Assessment was prepared. Although closely linked landscape and visual impacts are assessed separately.
- The proposal will not give rise to any significant residual impacts. It is well contained by vegetation restricting impacts to a very localised area. The scale is well assimilated within the prevailing landscape pattern in both a physical and contextual sense.

6.2.3. Noise

- Section 2.5.6 of the PECR considers the impact of noise from the development including transmission infrastructure during construction and operation.
- The installation of the solar panel arrays will be a temporary source of noise during the construction phase when the posts for the panels are erected on site. The characteristics of such noise is similar to normal agricultural works.
- Any potential noise impact will be controlled in accordance with BS 5228:2009 and A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites, the NRA's Guidelines for the Treatment of Noise and Vibration in National Road Schemes, WHO Community Noise Guidelines and BS 8233:2014 Guidance on Sound Reduction and Noise Insulation for Buildings. Further measures to control noise emissions during construction are detailed in section 2.5, Appendix O of the PECR.
- There will be no noise from the panels.
- The substation will house a 110kV transformer which will be the main source of sound pressure, It will only be in operation when power is being produced

ie. during daylight hours. The noise output at the nearest properties will be within relevant noise threshold limits.

- The proposal will comprise 40 no. inverter substations which have the potential for slight noise emissions due to internal fans perceptible immediately adjacent. They are generally located towards the central area of the site and will be located at a distance of approx. 170 metres from the nearest dwelling.

6.2.4. Ecology – Response to Peer Review

- The list of resources referenced in the PECR is not exhaustive. Additional resources are listed in the NIS.
- The desktop study adequately informed the survey methodology.
- The field surveys were undertaken by suitably qualified persons and were carried out in accordance with the multi-disciplinary walkover survey methodology.
- Mitigation measures are detailed.
- There is no published evidence of a fatality risk to birds associated with solar farms. Photovoltaic panels are dark black in colour and are designed to absorb light rather than reflect it.
- Opportunities for biodiversity gains have been shown to be possible at PV facilities where intense agricultural activities are replaced with a management plan for nature.
- The concerns raised regarding potential impact of the proposed development on bats and birds are not well founded or relevant to Ireland or are based on scientific experiments that were not specifically designed to evaluate ecological impacts on PV solar panels.

6.2.5. NIS

- It is considered the NIS was appropriately informed by an adequate desktop study and field surveys.

- The Councils planner's report did not find any lacunae with the assessment of habitats and species and no shortcomings or issues noted in relation to the AA documentation.

6.3. **Planning Authority Response**

The response can be summarised as follows:

- The County Council carried out an appropriate assessment which concluded that subject to mitigation measures the proposal would not have an adverse impact on the integrity of European sites.
- The development does not constitute a development listed in Schedule 5 of the Planning and Development Regulations, 2001, as amended. It is not a sub-threshold development. An EIAR was not required.
- The application was submitted to the Development Applications Unit which raised no objection to the proposal.
- The issues raised in the objections received were addressed in the planner's report.
- The issues raised on the previous application PL2/19/589 are deemed to be satisfactorily addressed.

6.4. **Section 131 Notices**

On the basis that the development might endanger with the safety of, or the safe and efficient navigation of aircraft, certain prescribed bodies were invited to make a submission/observation on the appeal.

Irish Aviation Authority has no observations.

7.0 Assessment

I consider that the issues arising in the case can be assessed under the following headings:

- Procedural Issues
- Environmental Impact Assessment
- Policy Context
- Landscape and Visual Impact
- Residential Amenities
- Access and Traffic
- Ecology
- Site Drainage
- Other Issues
- Appropriate Assessment

7.1. Procedural Issues

Project Splitting

7.1.1. The proposed solar farm is to be served by a substation and grid connection which will connect the solar farm to the existing Portlaoise to Newbridge 110kV overhead powerline via a looped connection. Under file ref. ABP-304101-19 (pre-planning consultation) the Board determined that the proposed 110kV substation and associated loop-in infrastructure falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and is therefore strategic infrastructure within the meaning of the Act. A planning application for same is required to be made directly to the Board. At the time of writing this report the application has not been made to the Board.

7.1.2. I submit that the potential impacts of the overall development, namely the solar farm and substation are included as part of the Planning & Environmental Report and Appropriate Assessment Screening prepared for this application. I am satisfied that

the Board has the necessary information before it to allow for an assessment of the cumulative impacts of the overall development.

Availability of Information and Public Consultation

- 7.1.3. I note the appellants' concerns regarding the availability of documentation and information during the assessment of the application by the planning authority. This is not a matter for comment by the Board.
- 7.1.4. Whilst concern is expressed as to the level of public consultation in relation to the project I note that there is no legal imperative for the applicant to engage in discussions prior to lodgement of an application. It is clear that local residents were aware of the application and engaged in the process by making their views known through written submissions to the Planning Authority in the first instance and to the Board at this appeal stage.

Site Area

- 7.1.5. The total area within the red line boundary of the site is 89.9 hectares. On the removal of the site area proposed for the electricity transmission infrastructure the planning application site area is 86.7 ha. This is the figure as submitted with the application.

Duration of Permission

- 7.1.6. The period sought for the duration of the permission is 40 years on the basis that the applicant is seeking to make the solar farm as competitive as possible for the auction scheme under the Renewable Energy Support Scheme. I note that the Board in recent decisions on solar farm development has specified a 35 year period (refs. ABP-305817-19, ABP-305953-19 and ABP 306065-19). The stated reason for same is so as to enable the planning authority to review the operation of the solar farm over the stated time period, having regard to the circumstances then prevailing, and in the interests of orderly development. In the interests of consistency I recommend such a 35 year period be applied by way of condition should permission be granted.

7.2. Environmental Impact Assessment

- 7.2.1. I note that the application is accompanied by an Environment Impact Assessment Screening Report whilst the Planning and Environmental Considerations Report has

a structure comparable to what is required to be provided in an EIAR in terms of subject matter.

- 7.2.2. Solar farms are not listed as a class of development for the purposes of EIA as set out in Parts 1 and 2, Schedule 5 of the Planning and Development Regulations, 2001 (as amended). Therefore an EIAR is not required. I note that a similar conclusion has been reached by the Board on other solar farm developments. I am also satisfied that no component part of the proposed development is a development class for which an EIAR is required.
- 7.2.3. Furthermore, the associated substation and grid connection which are to be subject of an application directly to the Board are not a class of development listed under Parts 1 or 2 of Schedule 5 of the said regulations.
- 7.2.4. Having regard to the above, I am satisfied that the proposed solar farm is not of a class that requires EIAR or screening for EIAR.

7.3. Policy Context

- 7.3.1. The proposed development is supported by national, regional and local policies in terms of renewable energy. Objective 55 of the National Planning Framework seeks to promote renewable energy and generation at appropriate locations within the built and natural environment, whilst paragraph 130 of 'Transition to a Low Carbon Energy Future 2015-2030 - White Paper on Energy Policy' recognises that solar energy will become more cost effective as technology matures and that it will be an integral part of the mix of renewables going forward. Consequent to same, the Climate Action Plan 2019 stresses the importance of the decarbonisation of electricity consumed by harnessing the significant renewable energy resources available. To meet the required level of emissions reduction by 2030 it is required to increase electricity generated from renewable sources to 70% with solar energy comprising of up to 1.5 GW (indicative figure).
- 7.3.2. At a regional level the Eastern and Midland Regional Spatial and Economic Strategy 2019 notes that to meet energy targets an increase in the share of renewable energy will be required. At a local level, whilst there is support for renewable energy sources, due to the emerging nature of the technology at the time of the development plan preparation specific objectives with respect to same or

identification of areas considered suitable/unsuitable for solar farms were not included.

- 7.3.3. I do not consider that the lack of Ministerial Guidelines or a solar energy strategy for County Offaly should be a reason for refusing permission in this instance or to preclude the consideration and adjudication of applications for such type development. In the absence of a plan-led approach, applications are to be considered on their individual merits and subject to normal planning considerations. The proposed development will make a contribution to Ireland's targets for electricity generation from renewable sources and for reductions in greenhouse gas emissions and I therefore consider the proposed development to be acceptable in principle, subject to consideration of the key planning issues as assessed below.

Loss of Agricultural Land

- 7.3.4. The development would be sited on agricultural land. I note that the UK has a grading system for land, ranging from Grade 1 (most productive) to Grade 5 (most marginal). There is no such grading system in Ireland and specifically there is no policy which precludes the development of solar farms on agricultural land.
- 7.3.5. Save for the access tracks and locations of the inverters it is not intended to remove soil from the site. Whilst the top soil layer will be disrupted during construction due to the passage of heavy vehicles original pasture conditions are generally returned within less than a season. Grazing of small animals can be accommodated on the site in addition to pro-agri-environmental measures (eg. sowing of wildflowers seeds and bee keeping). This appears to be the norm for most solar farms being proposed. This will maintain the fields in agricultural use, albeit restricted in the type of agricultural use.

7.4. Landscape and Visual Impact

- 7.4.1. The subject site covers an area of 86.7 hectares in two parcels within a relatively level landscape, largely in agricultural use, with mature hedgerows delineating field and roadside boundaries. As per the current County Development the site is within a landscape designated as being of low sensitivity. With reference to Table 7.11.2 such areas generally have higher capacity to absorb appropriately designed and

located development in all categories without causing significant visual intrusion. In addition, there are no listed views or prospects in the vicinity.

7.4.2. The application is accompanied by Landscape and Visual Impact Assessment and I consider that the methods used for viewpoint analysis, landscape assessment and visual assessment are satisfactory and in accordance with industry standards. Due regard is had to the proposed substation which is to be subject of a separate application to the Board. The assessment is supported by photomontages from 11 viewpoints and provide for, where appropriate, pre and post mitigation views. I consider the locations for the images chosen to be representative and allow for a proper assessment of the landscape and visual impacts of the proposed development from the most sensitive locations in the surrounding area.

7.4.3. Having inspected the site and surrounding area and having reviewed the viewpoint photographs and photomontages, I consider that the visual impact of the proposed development will be limited due to the site topography, the extensive hedgerows and their augmentation with further planting and the separation distances from roads and residential dwellings. Unrestricted views in the immediate environs and from further distances will not be possible. Any views would be intermittent.

7.4.4. I consider that the greatest potential visual impact arises at residential properties in in the immediate vicinity of the site, notably along local road L7178 which traverses the two parcels and along the local road along the western boundary. I submit that in view of the 20 metre minimum setback of the solar arrays from any boundary allied with the containment of the development within existing field boundaries (to be supplemented with additional planting) nestled within a relatively flat landscape will serve to mitigate the impact. I accept that views would be possible from the 1st floors of the small number of two storey dwellings in the vicinity, including those in proximity to the junction of the said local roads.

7.4.5. Reference is made to potential visibility from Lea Castle which is c.1.2km to the south-west of the site. Due to the topography of the landscape and existing hedgerow network, the site would not be visible from the base of the tower. Access to the upper levels of the structure is not possible.

7.4.6. I submit that although the area has an innate rural quality it is a working rural landscape and is highly managed. Whilst there is no doubt that the proposed

development would change the local landscape from a visual perspective, I consider that the extent of the visual impact is acceptable and that the landscape is capable of absorbing change. It will read as a modern intervention within such a managed landscape. Having regard to the mitigation measures proposed I am satisfied that the proposed development would not adversely impact on the landscape and visual amenities of the area. In conclusion, I consider that the proposed development is acceptable from a landscape and visual impact perspective, and that its impact would not be so significant as to outweigh the benefits of providing a significant renewable energy source.

7.5. Residential Amenities

- 7.5.1. A number of issues have been raised in the appeal submission concerning the potential impact of the proposed solar farm on residential amenity including visual dominance, glint and glare, noise and human health. As noted above the worst-case impact would be partial views of the solar farm giving rise to a moderate/ slight impact on the visual amenity of residents. I do not consider that visual dominance will be a significant issue given the low-rise nature of the proposal and the intervening topography and vegetation.

Glint and Glare

- 7.5.2. I note that the proposed development does not include tracking panels and that the panels are instead fixed in one orientation, facing due south. Solar PV panels, in order to be efficient, need to absorb as opposed to reflecting solar irradiation and therefore have an anti-reflective coating.
- 7.5.3. A site specific Glint and Glare Assessment is provided in Appendix M of the PECR. In relation to dwellings 66 properties were examined. The analysis states that glint and glare effects would be geometrically possible at 63 properties in the 'bare ground' scenario (which does not consider screening from terrain or hedgerows). On the basis of the calculations provided in Appendix 6A when screening is taken into account 1 no. property (H16) could potentially experience glint and glare (1st floor level) on a total of 19 days per year at a maximum of 10 minutes. The dwelling is situated to the west of the development. The mitigation provided by screening will reduce this to 17 days with a maximum of 10 minutes. Working on the reasonable

assumption that the main habitable rooms are located at ground floor level with bedrooms at 1st floor level which are mainly in use at night when glint and glare would not arise the impact is considered to be low.

- 7.5.4. The study also examined a total of 146 road receptor points on the adjoining local road network. Whilst glint and glare is theoretically geometrically possible at 141 further analysis, taking account of the existing screening, concludes that none have the potential to be materially affected by glint and glare.
- 7.5.5. Overall, I accept the findings of the report that no significant nuisance is predicted from glint and glare.

Noise

The panels in themselves would not generate noise. The main noise sources would be from the invertors which will be within containers and are located at a remove from the nearest dwellings. The nearest is c. 170 metres from the nearest dwellings to the south-west. No details are provided as to the noise levels anticipated from such invertors but I accept that noise emissions would be reduced by a combination of suppression arising from their enclosure and attenuation with distance. I also note that noise would only be generated during daylight hours and consequently there will be no noise emissions at night. Having regard to the low level of noise that will be generated, the separation distance to dwellings and the daytime operation of the solar farm when other noise sources such as traffic and farm machinery will contribute to the noise environment, I consider that impacts would be negligible.

Construction Phase

- 7.5.6. It is estimated that the construction period would be in the region of 4-6 months with 13 months for the transmission infrastructure to run concurrently, with the overall construction period envisaged to be 14 months. Each section of the solar farm north and south of the local road is to be served by a construction compound. The construction hours are proposed between 0700 and 1900 Monday to Friday and 0800 and 1400 Saturday. The weekday start time differs somewhat from what would normally be applicable, possibly compensating for the prohibition of HGV movements via Portarlinton during the school AM peak. This is not reasonable in terms of the residential amenities of property in the vicinity and I recommend that the

standard construction hours be required by way of condition. I shall address access and traffic in section 7.6 below.

- 7.5.7. It is inevitable that potential negative impacts to the local population may occur during the construction period particularly in terms of noise and traffic. However, these impacts will be temporary. A condition requiring the preparation of a construction management plan can be attached should the Board be disposed to a favourable decision.

Operational Phase

- 7.5.8. As the site will be largely unmanned save for occasional inspections/maintenance vehicular movements during the operational phase will be minimal and will have no impact.

7.6. Access and Traffic

- 7.6.1. The application is accompanied by an Outline Construction and Environmental Management Plan, Construction Traffic Study and a Swept Path Analysis.
- 7.6.2. The solar farm comprises of two parcels to the north and south of local road L7178. The local road connects to the R419 approx. 4.5km to the west. The road is typically 4 metres wide and relatively straight in the vicinity. The 80kph speed limit applies. It was noted to be lightly trafficked on day of inspection. The site is bounded by a local road to the west, also noted to be relatively lightly trafficked.
- 7.6.3. As noted above the construction period for the entire project including transmission infrastructure is 14 months. The volumes of vehicular movements will vary across the different construction phases with a peak flow of between 58 – 64 HGV 2- way movements per day anticipated for a 3 week period, largely corresponding with site preparation and enabling works and when the panels are being installed. Standard HGV loads are expected save for potentially an abnormal delivery load which may be needed to transport the substation transformer to the site.
- 7.6.4. The proposed haul route is delineated in Figure 8-5 of the PECR. It will travel from the M7 northwards onto the R445, R422, R419 and L-7178. A haul route assessment of the L-7178 from its junction with the R419 in Portarlington was carried

out which concludes that the road is capable of accommodating the expected size and volumes of vehicular movements.

- 7.6.5. Pre and post construction pavement surveys are proposed with the applicant to fund any necessary reinstatement works arising from the construction phase. I consider this to be a reasonable approach.
- 7.6.6. Following consultation with both Offaly and Laois County Councils HGV movements are to be restricted at peak school hour of 0800 - 0900 to avoid congestion in Portarlinton.
- 7.6.7. Whilst the additional traffic and management measures will inconvenience local road users and residents of dwellings in the vicinity the impacts are considered acceptable having regard to the limited duration of the works.
- 7.6.8. The operational phase of the solar farm would generate limited vehicular movements by maintenance staff on an ad-hoc basis. I do not consider that the additional movements would give rise to a material concern.

7.7. Ecology

- 7.7.1. The application is accompanied by a Natura Impact Statement and an appropriate assessment is undertaken in section 7.9 below. The River Barrow and River Nore SAC (site code 002162) is c. 155 metres to the south at the nearest point of the solar farm site.
- 7.7.2. The appeal is accompanied by a peer review of the ecological information submitted with the application wherein it concludes that there are deficiencies and shortcomings in the desk top and field studies and the assessments undertaken. This is refuted in the applicant's appeal response which states that the desktop study adequately informed the survey methodology with the field surveys carried out in accordance with the multi-disciplinary walkover survey methodology. 5 no. walkover surveys were carried out in the months of January, May, August, September and October between 2017 and 2019. Based on the results from the desktop study and field surveys and having regard to the suitability of the habitats on site, further surveys were not deemed to be necessary to inform the impact assessment.

- 7.7.3. The site is characterised by habitat and species normally associated with managed agricultural land with no habitat conducive to qualifying interests of European Sites identified. A stand of Japanese Knotweed was recorded in the north-western corner of the overall site. A Invasive Species Management Plan can be required by way of condition.
- 7.7.4. The appellants contend that the site is used widely by bats. I note that bats are not a qualifying interest of the nearby SAC. From the survey work undertaken it was identified that none of the trees were recorded as having high bat roost potential but that the hedgerows and treelines offer suitable foraging and commuting habitat for bats. In total in the region of 770 metres of hedgerow in the north of the site and 140 metres to the east and west of the proposed site entrances are to be removed. Any tree pruning or lopping shall be undertaken in accordance with best practice in terms of being brought to the ground in a supported fashion and left in-situ for 24 hours. For the remaining hedgerows buffer zones are proposed to be maintained.
- 7.7.5. I submit that in view of the nocturnal nature of the species, the fact that save for the north-western section of the site very short stretches of hedgerow are to be removed to facilitate the development with the existing hedgerow and treelines to be augmented and to the preponderance of comparable habitat in the vicinity, the development will not result in an adverse impact on bats.
- 7.7.6. Badger latrines and tracks with one badger sett were recorded in the north-east of the site, the latter deemed to be inactive. Appropriate measures during the construction phase are proposed with appropriate perimeter fencing and badger gates proposed to allow for mammal pass.
- 7.7.7. Although in proximity to the River Barrow no evidence of otter was noted on site although there is limited potential for otters to use the drainage ditches on site for commuting. As noted, buffer zones to hedgerows and any drainage ditches are to be maintained.
- 7.7.8. In terms of avifauna whilst the appellants have noted Whooper Swan in the vicinity the site the species was not noted in the ecological surveys carried out. The last recorded sighting in the area was in 2001. The nearest designated site where Whooper Swan is a qualifying interest is Lough Ree SPA c. 60 km to the north.

- 7.7.9. The appellant raises concerns that avifauna could mistake the solar panels for a waterbody with studies noted in support. The agent for the applicant in response cites studies in rebuttal. I note that PV panels are dark black in colour and are designed to absorb rather than reflect light and its similarity to a lake is unlikely when considered against other man-made smooth flat surfaces introduced into the environment.
- 7.7.10. On balance I consider that adequate detail has been provided on the ecology of the site and it has been prepared in accordance with the methodology as set out in guidelines issued by NRA and the Heritage Council. I am satisfied that it is of sufficient scope and detail to assess the overall ecological impact of the proposal. Given the location of the site in an area characterised by similar lands and habitats and the mitigation measures to be incorporated including a riparian enhancement zone to the Old Course of the River Barrow bounding the southern parcel to the east I consider that the impacts on the ecology of the site and the wider area would be acceptable.
- 7.7.11. I note that in view of the potential time span to elapse between a permission being granted and commencement of development a pre-construction survey is proposed to be undertaken with particular regard to badger and bat species. I consider this to be a reasonable approach.

7.8. Site Drainage

- 7.8.1. As per the flood extent map prepared for the River Barrow in the South Eastern Catchment Flood Risk Assessment and Management Study (CFRAM) a large extent of the southern section of the site is within Flood Zone A. I estimate that in the region of 21 hectares is within the said zone. Based on the available data the 1% AEP flood levels across the site are expected to range from 61.64-61.02mOD. In addition the OPW PFRA mapping indicates potential pluvial flood risk on the site in localised depressions.
- 7.8.2. The applicant considers that by reason of their construction details solar farms are considered a water compatible use and suitable for development within Flood Zone A. I note that such type development is not included in Table 3.1 of the Guidelines on the Planning System and Flood Risk Management which sets out the vulnerability

classification of different types of development. This omission is not entirely unexpected as the list is not exhaustive and the 2009 guidelines largely pre-dates the advancement of such type development in an Irish context. I note that the guidelines states that uses not listed should be considered on their own merits. By their nature I would concur with the view that PV panels are not sensitive to flooding.

- 7.8.3. A Flood Risk Assessment accompanies the application and is provided in Appendix E of the PECR with hydraulic modelling carried out. The flood extents for both the 1% and 0.1% AEP flood events are similar to the flood outlines presented in the Eastern CFRAM.
- 7.8.4. In mitigation it is proposed to place the solar panels above the 1% AEP flood level including a 400mm freeboard provision. Consideration will be given to local depressions with panels not to be constructed in areas with predicted flood depths greater than 1.1 metres based on a panel height of 1.5 metres. The areas to be excluded are delineated on Figure 5-1 of the Flood Risk Assessment. Invertors are proposed to be located outside Flood Zones A and B.
- 7.8.5. There is also the requirement to ensure that the development would not give rise to increased flooding elsewhere. Although the site coverage of the arrays is higher, they will not form large impermeable surfaces given their installation methodology with limited hardstanding area as they are anchored by way of piling with an angled position. In addition, given the separation distance between rows of arrays, the retention of existing site topography with no alterations to the site levels and retention of the grassland ground cover, precipitation will continue to infiltrate naturally to ground. Whilst there may be some minor changes to the journey of rain fall to the ground this would be minimal and would have little or no impact on the infiltration rate. I also note that access and maintenance roads will be constructed from permeable material. There will, therefore, be no increase in the rate of discharge.
- 7.8.6. Overall, I would be satisfied that the applicant has submitted comprehensive information to allow the Board to adequately assess the drainage implications and flood risk arising from the proposed development. Having regard to the above, I do not consider that the surface water regime would be altered such that the development would result in any significant increase in flood risk. Accordingly, I am

satisfied that the development should not be refused for issues of surface water drainage or flood risk. Measures will also be put in place to prevent contamination of surface water from soil erosion or during the construction phase of the proposed development. I address this in more detail in the appropriate assessment below.

7.9. Other Issues

Concerns about the impact of glint and glare on bloodstock and airfields in the area are raised. In terms of the former I am not aware of any evidence to suggest that horses are specifically susceptible. In terms of the latter the Solar Glare Hazard Analysis Tool was used in the assessment and is the industry standard. The results show that there is was no glare found along the approaches to the identified runways. I note that the Irish Aviation Authority had no observations to made on the appeal.

7.10. Appropriate Assessment

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

- 7.10.1. The requirements of Article 6(3) as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.
- 7.10.2. The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given. The proposed development is not directly connected to or necessary to the management of any European site and, therefore, is subject to the provisions of Article 6(3).
- 7.10.3. The application is accompanied by a Natura Impact Statement (NIS) prepared by Tobin Consulting Engineers dated March 2021. It contains a description of the

proposed development, the project site and the surrounding area. It contains a Stage 1 Screening Assessment in Section 5. It outlines the methodology used for assessing potential impacts on the habitats and species within the European Site that has the potential to be affected by the proposed development. It predicts the potential impacts for the site and its conservation objectives, it suggests mitigation measures, assesses in-combination effects with other plans and projects and it identifies any residual effects on the European sites and their conservation objectives.

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

Need for Stage 1 AA Screening

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

Brief Description of the Development

7.10.6. The applicant provides a description of the project in Section 3 of the NIS. The development is also summarised in Section 2 of this Report. In summary the proposed development entails the construction of 60MW solar farm comprising of solar panels mounted on steel supported structures with associated cabling and ducting, 40 no. inverter stations, 4 no. steel storage containers, access tracks, security fencing, CCTV cameras and 2 no. construction compounds. The site straddles local road L7178.

7.10.7. The site comprises a number of fields largely in agricultural use, with the boundaries delineated by hedgerows. The dominant habitat on site is improved agricultural grassland. The site is relatively flat. The River Barrow is c. 155 metres to the south

with the Old Course of the River Barrow to the east of the site area to the south of L7178.

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

- Surface water related pollution during earthworks and construction phase
- Increase in run off rates and potential release of sediment and pollutants due to the absence of typical farming activity.
- Surface water related pollution during decommissioning phase.

Submissions and Observations

The 3rd party appeal is accompanied by a peer review of ecological information submitted with the application including the Natura Impact Statement. It is considered that the NIS has been informed by inadequate assessments of the potential impacts of the proposed development. Given the deficiencies, flaws and lacunae a refusal of permission should issue.

European Sites

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

The River Barrow which is approx. 155 metres to the south forms part of the River Barrow and River Nore SAC (site code 002162). The nearest SPA is Slieve Bloom SPA c. 20 km to the south-west, the qualifying interest being Hen Harrier.

- Taking into consideration the drainage ditches along field boundaries within the site and the proximity of the River Barrow which forms part of the River Barrow and River Nore SAC (site code 02162) there is the possibility that surface water runoff containing silt or contaminants could reach the SAC and have effects on the qualifying interests of the site. The potential for effects on

the qualifying interests of this Natura 2000 site cannot, therefore, be screened out and Stage II Appropriate Assessment is required.

- Slieve Bloom SPA is over 20km from the site and it is outside the foraging range of the Hen Harrier which is the qualifying interest. Neither the species nor habitat associated with the species were identified during the surveys conducted on the site. On the basis of the foregoing the potential for significant impacts on the species can be screened out.

Mitigation Measures

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

Screening Determination

The proposed development was considered in light of the requirements of Section 177U of the Planning and Development Act 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually (or in combination with other plans or projects) could have a significant effect on European Site no. 002162 in view of the site's Conservation Objectives and Appropriate Assessment (and submission of a NIS) is therefore required.

The Natura Impact Statement

- 7.10.9. The NIS (Tobin Consulting Engineers, March 2021) examines and assesses potential adverse effects of the proposed development on 1 no. designated European Site.
- 7.10.10. The NIS is stated as having been informed by best practice guidance for such assessments, a desktop and literature study, including NPWS databases, the synopses, Natura 2000 Data Forms and conservation objectives and EPA mapping, and habitat and species surveys.
- 7.10.11. Section 5 of the NIS contains an assessment of the potential impacts of the proposed development on the identified European Site and in combination effects, while Section 6 sets out a series of mitigation measures.
- 7.10.12. The NIS concluded that there will be no significant effects to the integrity of the designated sites.

7.10.13. Having reviewed the NIS, all supporting documentation and submissions, I am satisfied that the information allows for a complete assessment of any adverse effects of the proposed development on the conservation objectives of the abovementioned European sites alone, or in combination with other plans and projects.

Appropriate Assessment of Implications of the Proposed Development.

7.10.14. The following is an assessment of the implications of the project on the relevant conservation objectives of the European site using the best available scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed. I have relied on the following guidance:

- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service. Dublin
- EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC.

Relevant European sites:

7.10.15. River Barrow and River Nore SAC (site code 002162) is subject to appropriate assessment

7.10.16. A full catalogue of this site and its qualifying interests are set out in Table 6-1 of the NIS. Habitats and species for which direct or indirect impacts were identified for assessment of adverse effects are examined in view of their conservation objectives, including detailed targets and attributes (Section 6 of NIS). This was based on ecological surveys, analysis of distribution mapping, ecological requirements of individual species and habitats and impact pathways etc. I have examined and evaluated this scientific analysis. I have also examined the Natura 2000 data forms as relevant and the conservation objectives supporting documents for these sites,

available through the NPWS website (www.npws.ie). I am satisfied that in-combination effects have also been considered and adequately assessed in the NIS.

Aspects of the Proposed Development

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

- Release of sediment and other pollutants to surface water during the construction phase
- Disturbance/displacement arising from perimeter fencing.
- Run off and potential release of sediment and pollutants during the operational phase.
- Release of sediment and other pollutants to surface water during decommissioning phase.

7.10.18. Section 8 of the NIS details mitigation measures to be employed, the majority of which are considered to represent best construction practice measures. The mitigation measures include:

7.10.19. *Design:*

- Maintenance of a 5 metre buffer to hedgerows and 10 metres to drainage ditches
- Fencing to allow for mammal pass

7.10.20. *Construction Phase:*

- Best practice construction methods to be employed.
- Ecological monitoring to be undertaken by suitably qualified Ecological Clerk of Works.
- Construction Environmental Management Plan to be prepared.
- Appropriate areas for stock piling of excavated materials, equipment and hydrocarbons and measures to avoid escape of materials.

- Excavation works not to be carried out during or following heavy rainfall. Excavations to be covered during high rainfall to avoid creation of silty water that may require dewatering.
- Silt fences to be installed downslope of areas where it is likely that silt will be generated. The fences are to be maintained until vegetation on the disturbed ground has been re-established.
- Emergency response protocol to be put in place.
- Water quality monitoring programme for pre-construction and construction stages. Sampling to commence at least 6 months in advance of construction work.
- Daily visual inspections of surface drainage and sediment control measures and the watercourses.
- Appropriate measures to address stand of Japanese Knotweed.

7.10.21. Operational Phase:

- Transformers and all fuel will be stored in bunded areas.

7.10.22. Decommissioning Phase:

- Measures comparable to those incorporated into construction phase.

7.10.23. The table below summarises the appropriate assessment and integrity test. The conservation objectives, targets and attributes as relevant to the identified potential adverse effects have been examined and assessed in relation to all aspects of the project (alone and in combination with other plans and projects). Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed. In terms of possible in-combination effects, plans, programmes and existing and proposed developments were considered including the proposed substation which is to be subject of a direct application to the Board . This complete assessment allows for clear, precise and definitive conclusions to be reached in terms of adverse effects on the integrity of European sites.

Cumulative and In-Combination Effects

7.10.24. I do not consider that there are any specific in-combination effects that arise from other plans or projects. The NIS considered the combined impacts of the overall

development proposal on the site including the proposed substation which is to be subject of a separate application to An Bord Pleanála. I consider that any potential for in-combination effects on water quality in the River Barrow is negligible.

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

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

AA Conclusion:

- 7.10.26. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000 as amended. Having carried out screening for Appropriate Assessment of the project, it was concluded that the likelihood of significant effect on the River Barrow and River Nore SAC (site code 002162) could not be excluded:

- 7.10.27. Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of that site in light of its conservation objectives. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the European site, or any other European site, in view of the site's Conservation Objectives. This conclusion is based on a complete assessment of all aspects of the proposed project and there is no reasonable scientific doubt as to the absence of adverse effects. This is consistent with the findings of the submitted NIS.

Summary Table – River Barrow and River Nore SAC

Key issues

- Water quality impacts due to pollutants or soil/silt run off during construction, operation and decommissioning phases
- Displacement/barrier to protected species

Conservation Objectives https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf

Summary of Appropriate Assessment

Conservation Objective To maintain (M) or Restore (R) the favourable conservation condition of the following:	Targets and attributes (summary-as relevant)	Potential adverse effects	Mitigation measures (including monitoring)	In-combination effects	Can adverse effects on integrity be excluded?
Estuaries (M) Mudflats and sandflats not covered by seawater at low tide (M) Salicornia and other annuals colonising mud and sand (M)	These qualifying interest species and habitats are outside of the range of any possible impact of the PRD and are not considered further in the assessment.	N/A	N/A	N/A	Yes Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on these qualifying interests in view of their conservation objectives

<p>Atlantic salt meadows (Glauco-Puccinellietalia maritima) (R)</p> <p>Mediterranean salt meadows (Juncetalia maritimi) (R)</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (M)</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles (R)</p> <p>Vertigo moulinsiana (Desmoulin's Whorl Snail) (M)</p> <p>Alosa fallax (Twaites Shad) (R)</p> <p>Trichomanes speciosum (Killarney Fern) (R)</p>	<p>This was informed by reference to the distribution as detailed in best available scientific information from NPWS</p>				<p>All occur outside of any possible range of influence of the proposed development.</p>
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<p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation (M)</p> <p>Petrifying springs with tufa formation (Cratoneurion) (M)</p> <p>Margaritifera durrovensis (Nore Pearl Mussel) (R)</p>	<p>These qualifying interests and species are in a separate catchment to the River Barrow and no pathways exist.</p> <p>This was informed by reference to the distribution as detailed in best available scientific information from NPWS</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Yes</p> <p>Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on these qualifying interests in view of their conservation objectives All occur outside of any possible range of influence of the proposed development.</p>
<p>European dry heaths (M)</p>	<p>The qualifying interest is not a freshwater habitat and no pathways exist.</p> <p>This was informed by reference to the distribution as detailed in best available scientific information from NPWS.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Yes</p> <p>Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on these qualifying interests in view of their conservation objectives It occurs outside of any possible range of</p>

					influence of the of the proposed development.
Margaritifera (Freshwater Pearl Mussel)	Populations exist within separate sub-catchments of the River Barrow and no pathways exist. This was informed by reference to the best available scientific information from NPWS.	N/A	N/A	N/A	Yes Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on these qualifying interests in view of their conservation objectives It occurs outside of any possible range of influence of the proposed development.
Austropotamobius pallipes (White-clawed Crayfish) (R) (M)	This species is located upstream of the proposed development. No pathway exists. This was informed by reference to the distribution as detailed in best available	N/A	N/A	N/A	Yes Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on this qualifying interest in view of its conservation objectives.

	scientific information from NPWS.				It occurs outside of any possible range of influence of the proposed development.
Petromyzon marinus (Sea Lamprey) (R)	75% of mainstream length of rivers accessible from estuary, minimum 3 no. age/size groups present, juvenile density, no decline in extent and distribution of spawning site, number of positive sites in 3 rd order channels.	No direct Impacts. Indirect Impact <u>Construction and Decommissioning Phases</u> Potential for decrease in water quality due to ingress of construction related pollutants Spread of Invasive Species	No direct discharges to watercourses. Silt fences to be installed. Ecological Clerk of Works to monitor compliance with mitigation measures and conditions. Pre construction and construction phases water quality monitoring	None	Yes Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on this species in view of the conservation objectives.
Lampetra planeri (Brook Lamprey) (R) Lampetra fluviatilis (River Lamprey) (R)	Access to all watercourses down to 1 st order streams, no decline in extent and distribution of spawning beds, minimum 3 no. age/size groups present, mean	<u>Operational Phase</u> Potential for accidental spillage and release of pollutants	Best practice measures in soil/subsoil stripping, stockpiling of materials, fuel storage, incident spillage plan.		

	catchment juvenile density		Invasive Species Management Plan		
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) (R)	No decline in distribution, structure or composition and area stable or increasing. Maintenance of diversity and extent of community types.				
<i>Salmo salar</i> (Salmon) (R)	100% channel down to 2 nd order accessible from estuary, maintain or exceed fry mean catchment wide abundance threshold, no significant decline in out-migrating smolt abundance, water quality to be at least Q4 and no decline in number and distribution of spawning redds.				

<p>Otter (R)</p>	<p>No significant decline in distribution or extent of terrestrial or freshwater habitat. No significant decline in couching or holt sites. No significant decline in fish biomass available, no significant increase in barriers to connectivity.</p>	<p>No direct Impacts</p> <p>Indirect Impacts</p> <p><u>Construction Phase</u></p> <p>Disturbance</p> <p>Potential for decrease in water quality due to ingress of construction related pollutants, temporary disturbance of otter if commuting in area affected.</p> <p><u>Operational Phase</u></p> <p>Obstruction if commuting in area affected</p>	<p><u>Construction Phase</u></p> <p>Best practice pollution prevention methods set out in Construction Environmental Management Plan.</p> <p>Buffer zones to drainage ditches.</p> <p>Use of silt curtains during construction</p> <p>Ecological Clerk of Works to monitor compliance with mitigation measures and conditions.</p> <p>Pre construction and construction phases water quality monitoring</p> <p><u>Operational Phase</u></p> <p>Perimeter fencing to erected above ground level to allow mammal passage.</p>	<p>None</p>	<p>Yes</p> <p>Adverse effects on site integrity can be excluded as there is no doubt as to absence of effects on this species in view of the conservation objectives</p>
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Overall conclusion: Integrity test

Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of River Barrow and River Nore SAC in view of the site's conservation objectives. No reasonable scientific doubt remains as to the absence of such effects. Note: monitoring is included as best practice and does not imply any uncertainty regarding adverse effects or the effectiveness of any mitigation measures.

8.0 Recommendation

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

9.0 Reasons and Considerations

Having regard to

- national and regional policy objectives in relation to renewable energy,
- the provisions of the Offaly County Development Plan 2014,
- the nature, scale, extent and layout of the proposed development
- the topography of the area
- the existing hedging and screening on the site
- the pattern of development in the area, and
- the report of the Inspector,

it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the visual amenities of the area or the residential amenities of property in the vicinity, would not be likely to have significant effects on the environment, or the ecology of the area, would be acceptable in terms of traffic safety and convenience and would not give rise to increased risk of flooding of the site or of property in the vicinity. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Appropriate Assessment: Stage 1:

The Board considered the Natura Impact Statement 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 and adopted the screening assessment carried out and conclusions reached in the Inspector's report that the River Barrow and River Nore SAC (site code 002162) is the only

European Site in respect of which the proposed development has the potential to have a significant effect.

Appropriate Assessment: Stage 2:

The Board considered the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein, the submissions and observations on file, and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the aforementioned European Site in view of the site's 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 site's Conservation Objectives.

10.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of the development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

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

Reason: Having regard to the nature of the proposed development, the Board considered it reasonable and appropriate to specify a period of the permission in excess of five years.

3. 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 interest of clarity.

4. All of the environmental, construction and ecological mitigation measures, as set out in the Planning and Environmental Considerations Report and the Natura Impact Statement submitted with the application shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this Order.

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

5.
 - (a) This permission shall be for a period of 35 years from the date of the commissioning of the solar array. The solar array and related ancillary structures shall then be removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.
 - (b) Prior to commencement of development, a detailed restoration plan, including a timescale for its implementation, providing for the removal of the solar arrays, including all foundations, anchors, inverter/transformer stations, 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 solar farm over the stated time period, having regard to the circumstances then prevailing, and in the interest of orderly development.

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

(d) The inverter stations shall be dark green in colour.

Reason: In the interest of clarity, and of visual and residential amenity.

7. (a) Existing field boundaries shall be retained, notwithstanding any exemptions available and new planting undertaken in accordance with the Landscape Mitigation Plan – Sheets 1.1 and 1.1 submitted with the application
- (b) All landscaping shall be planted to the written satisfaction of the planning authority prior to commencement of development. Any trees or hedgerow that are removed, die or become seriously damaged or diseased during the operative period of the solar farm as set out by this permission, shall be replaced within the next planting season by trees or hedging of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interests of biodiversity, the visual amenities of the area, and the amenities of dwellings in the vicinity.

8. Prior to commencement of development, details of the structures of the security fence showing provision for the movement of mammals shall be submitted for prior approval to the planning authority. This shall be facilitated through the provision of mammal access gates every 100 metres along the perimeter fence and in accordance with standard guidelines for provision of mammal access (National Roads Authority 2008).

Reason: To allow wildlife to continue to have access across the site.

9. The construction of the development shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including but not limited to, hours of working,

noise and dust management measures, surface water management proposals, the management of construction traffic, and the off-site disposal of construction waste.

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

10.
 - (a) Prior to commencement of development the results of a pre-construction survey of the condition of delivery routes, bridges and culverts shall be submitted to the planning authority for written agreement.
 - (b) The developer shall carry out at its expense the necessary upgrades of roads and/or junctions in advance of delivery operations.
 - (c) A post-construction survey of the condition of delivery routes, bridges and culverts shall be submitted to the planning authority for its written agreement within six months of completion of construction works. Any damage to the road and/or junctions shall be repaired to its previous condition within one year following the receipt of the post-construction survey by the planning authority.

Reason: In the interest of traffic safety.

11. Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services. Surface water from the site shall not be permitted to drain onto the adjoining public road or adjoining properties.

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

12. Site development and building works shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional

circumstances where prior written approval has been received from the planning authority.

Reason: In order to safeguard the residential amenities of property in the vicinity.

13. Prior to commencement of development, the developer shall lodge an Invasive Species Management Plan for the written agreement of the planning authority.

Reason: In the interest of the protection of the ecology of the area.

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

Reason: To ensure satisfactory reinstatement of the site.

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

planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

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

Pauline Fitzpatrick
Senior Planning Inspector

August, 2021