



An  
Bord  
Pleanála

## Inspector's Report ABP-312288-21

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<b>Development</b>	Solar Farm & Grid Connection
<b>Location</b>	Listowel, Co. Kerry
<b>Planning Authority</b>	Kerry County Council
<b>Planning Authority Reg. Ref.</b>	21457
<b>Applicant(s)</b>	Terra Solar II Ltd.
<b>Type of Application</b>	Permission
<b>Planning Authority Decision</b>	Refuse permission
<b>Type of Case</b>	1 <sup>st</sup> Party Appeal
<b>Observer(s)</b>	Thomas Gleeson & Siobhan Devaney
<b>Date of Site Inspection</b>	31 <sup>st</sup> March & 1 <sup>st</sup> April 2022
<b>Inspector</b>	Karla Mc Bride

## 1.0 Site Location and Description

- 1.1. The rural site is located into the NW of Listowel in County Kerry and the surrounding area is agricultural in character. The solar farm site is located in Ballydonohoe to the SE of Lisselton Village, E of the R553 Listowel Road, and S of the L-1008 rural road which provides access to the site. The grid connection route extends NE across agricultural fields and rural roads to the site of a permitted solar farm and 110kV substation at Tullamore which is located to the E of the R552 and S of the L-1009.
- 1.2. The c.76 ha solar farm site comprises a series of gently sloping agricultural fields that are defined by mature trees, hedgerows and drainage ditches, and the site is traversed by an existing overhead power line. The lands slope down in a south-easterly direction towards a wooded area with the River Galey beyond, and this river drains S to the River Feale. Both rivers form part of the Lower River Shannon SAC. The NW section of the solar farm site drains to the River Glouria which ultimately discharges to the Lower River Shannon SAC to the SW. The c.5km long grid connection route crosses several agricultural fields, and it traverses and/or runs parallel to several rural roads and three small streams that drain to the River Galey.
- 1.3. The surrounding area is sparsely populated with several farm buildings and detached houses in the vicinity of the solar farm site to the N and W along the Lisselton and Listowel roads, and along sections of the rural road network traversed by the grid connection route.
- 1.4. There are several recorded archaeological sites to the SW, S and SE of the solar farm site (incl. Ringforts & Enclosures) and there are several other heritage features in the surrounding area including St. Batts Holy Well to the SE of the solar farm site along the grid connection route at Coolard.
- 1.5. There is a permitted but not yet constructed 50MW solar farm (ABP-302681-18) to the NE of the site at Tullamore and there is a permitted but not yet constructed 110kV substation with associated loop-in infrastructure (ABP-305106-19) to tie into and existing overhead 110kV transmission line. There are several other operational and permitted windfarms in the wider area.
- 1.6. Photographs and maps contained in Appendix 1 describe the site and location in some detail.

## 2.0 Proposed Development

2.1. This application relates to the installation of a solar farm on a c.76 ha site along with a part overhead and part underground grid connection to the permitted 110kV substation to the NE at Tullamore.

The proposed development would comprise:

- Solar panels on ground mounted frames (c.357,500).
- Combined electrical inverter/transformer stations (c.19).
- Underground & overground cabling.
- Vehicular access off the L-1008 (N) via an existing & upgraded entrance.
- Internal access tracks, temporary work compounds, met masts, security fencing & CCTV, landscaping and site works.
- Part overground & part underground grid connection to permitted 110kV substation at Tullamore (ABP-305106-19).
- Minor amendments to permitted solar farm at Tullamore (ABP-302681-18) comprising laying of underground cabling under the access track off L-1009.
- Operational lifespan of 35 years & 10-year permission sought.

2.2. The application was accompanied by the following documents:

- Planning & Environmental Statement
- Screening for AA & NIS reports
- Ecological Impact Assessment report
- Aquatic Ecological Impact Assessment report
- Archaeological Impact Assessment report
- Landscape & Visual Impact Assessment report
- Glint & Glare Assessment report
- Site Access & Drainage Study report
- Site Specific Flood Risk Assessment report
- Outline CEMP & Outline Construction Methodology reports
- Detailed planning drawings

## 3.0 Panning Authority

### 3.1. Planning Authority reports

**Pre-planning consultation:** PA noted that the lands are zoned General Rural, no visual, landscape or flood impacts anticipated, grid connection likely to be via permitted Tullamore Solar Farm & the need for archaeological testing was raised.

**Planning authority report no.1:** PA requested FI in relation to 3 x items.

**Further Information:**

1. Establish the extent of the 20m buffer zones around recorded monuments & carry out pre-development archaeological testing of all areas of proposed ground disturbance - *concerns noted; and reference made to NMS Internal Guidance for Solar farms that advises against FI requests for geo-physical surveys & archaeological testing on the sole grounds that the development is large scale and such requests should be made on specific indicators of potential, none of which were noted during the detailed survey of the lands.*
2. Comment on public submissions - *concerns noted & responded to.*
3. Liaise with KCC Roads Dept. - *undertaken.*

**Planning authority correspondence:** requested a more detailed response to FI no.1 in relation to pre-development testing - *similar response as before.*

**Planning authority report no.2:** the Planning Officer was not satisfied with the applicant's response to the FI request and recommended that permission be refused for 1 x reason related to the need for archaeological pre-testing.

**Planning authority decision:** planning permission refused for the following reason:

The application site is located in an area with a high density of archaeological monuments and artefacts which indicate the potential for sub-surface archaeological features or strata to be present. An informed assessment of the planning application and for redesign of the proposed development, if necessary, and the preservation in-situ of archaeological features which may be present on the site cannot be made in the absence of a detailed assessment of the sub-surface archaeological potential of the proposed development site. The PA is therefore not satisfied that the proposed development would not seriously injure or interfere with the archaeological heritage of the area. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

### 3.2. **Interdepartmental reports**

**County Archaeologist:** noted high-density of archaeological features in the surrounding area and the possible presence of as yet undiscovered below ground artefacts on the site, and requested FI in relation to pre-decision testing.

Recommended refusal of permission when pre-testing details not submitted having regard to Obj. H-27 of the Dev. Plan, and sections 3.6 of the NMS document “Frameworks & Principles for the Protection of the Archaeological Heritage”.

**Biodiversity Officer:** no adverse effect on the integrity of a European site.

**Listowel District Engineer:** no objection subject to standard conditions.

**HSE/EHO:** referral noted.

### 3.3. **Prescribed Bodies**

**Inland Fisheries Ireland:** no objection subject to standard conditions.

### 3.4. Public submissions

Three submissions were received from the following local residents:

- Dan & Helen Browne
- Noel McGregor & family members, and Kinga Wrobel
- Thomas Gleeson & Siobhan Devaney

Their collective concerns raised relate to:

- Over-concentration or renewable energy projects in the area.
- Cumulative impacts in-conjunction with Tullamore Solar Farm.
- Project splitting & EIAR required.
- Loss of agricultural land & flood risk.
- Visual amenity & landscape character.
- Residential impacts (proximity, noise and glint & glare).
- Risk of major accident & danger to human health (incl. fire & EMFs).
- Traffic generation & road safety.
- Ecology, biodiversity & water quality.
- Lack of community engagement.

## 4.0 Appeal

### 4.1. First Party Appeal

- Sole reason for refusal relates to pre-development archaeological testing in all areas of proposed ground disturbance prior to decision making.
- Happy to undertake testing prior to construction commencing, however testing before the decision is unreasonable & unnecessary.
- NMS policy guidance & applied ABP precedent in relation to solar farms highlight that pre-construction testing is the most appropriate method.
- An unwarranted request for testing has implications for both the applicant and landowners (incl. farming operations, soil productivity & income).
- KCC refusal will inhibit the delivery of renewable energy.
- NMS Solar Farm Developments, Internal Guidance Document (2016), which supplements the Framework & Principles for Protection of

Archaeological Heritage (1999), recognises solar farms as a new category of development that is significantly different to older categories.

- Council does not take account of the 2016 supplemental Guidance and the County Archaeologist cites the 1999 “pillar” document.
- High density of archaeology in an area is not sufficient alone to warrant testing in advance of permission, and the Guidance contains a practical series of criteria to determine at what point testing should occur.

NMS Guidance Criterion	Consideration
Close proximity to known archaeological monuments?	No. Site boundary outside the ZoN of nearby archaeological monuments.
Was presence of potential features identified from aerial photographs?	No. None captured on aerial drone imagery.
Was presence of features identified during field walking?	No. Nothing identified in the 21 x fields or along the grid connection route.

- There is therefore no requirement for testing in advance of permission & copy of Archaeologists report in support of this conclusion attached.
- Council reports indicate satisfaction with proposed mitigation measures.
- Project involves 13 x landowners (c.76 ha) and request for pre-testing of all ground works would be highly invasive with sizable economic impacts.
- Testing prior to construction is consistent with established precedent locally and ABP decision making nationally.
- Nearby permitted solar farm at Tullamore included a Recorded Monument (Ringfort) within the site boundary, and the County Archaeologist also advised pre-decision testing which was reflected in the reasons for refusal.
- This decision was overturned by ABP who had regard to the flexible design of solar farms, and pre-construction testing was conditioned.
- A similar pre-construction as opposed to pre-decision testing approach was adopted in several other solar farm cases nationally (details on file).

- KCC has no objection in principle to the development or its location and the Council's refusal would inhibit the implementation of government policy to substantially increase electricity generated from renewable sources.

#### 4.2. Observers

Thomas Gleeson & Siobhan Devaney raised the following concerns.

- Proximity of solar panels, visual amenity & requested larger separation.
- Adverse glint and glare impacts on residential amenity & traffic safety.
- Fire risk & query need for a Fire Plan, and EMF health risks.
- Noise pollution from wind passing under & through the panels, and noise from inverters and overhead cables.
- Inadequate community engagement.
- Adverse impacts on biodiversity (incl. from cabling & hedgerow removal).
- Project splitting & EIA required (Tullamore solar farm & grid connection).
- Flood risk arising from orientation of panels and site gradients, flood liability, and flooding occurs to the S along Listowel Road at Inch.

#### 4.3. Prescribed Bodies & Planning Authority

Case and not circulated & ni response from PA.

### 5.0 Planning History

**ABP-302681-19:** Planning permission granted by ABP for a 50MW solar farm (including the c. 228,906 solar panels, c.6,000m of internal access tracks & underground cabling) on the c.99ha site in the townland of Tullamore, subject to 15 x standard conditions. The Board also carried out an Appropriate Assessment which concluded that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Site, in view of the site's conservation objectives.



**ABP-302516-18:** Following one pre-application consultation meeting, the Board decided that the proposed development of a 110kV 4-bay C-Type electricity substation, cable end masts & overhead line in the townland of Tullamore, Listowel, Co. Kerry falls within the scope of section 182A of the Planning and Development Act 2000, and that a planning application should be made directly to the Board.

**ABP-305106-19:** APB granted permission for an electricity development (110kV 4-bay substation & loop-in infrastructure) in the townland of Tullamore.

## 6.0 Policy and Context

### 6.1. National and Regional policy

#### **Climate Action Plan 2021**

This plan seeks to tackle climate breakdown and achieve net zero greenhouse gas emissions by 2050. It identifies several risks as a result of climate change including rising sea-levels, extreme weather, further pressure on water resources and food production systems, and increased chance and scale of river and coastal flooding.

#### **National Planning Framework, 2018-2040**

This plan sets out a high-level strategic plan for shaping the future growth and development to 2040 which seeks to develop a region-focused strategy to manage growth and environmentally-focused planning at a local level. It also seeks to harness the country's renewable energy potential, achieve a transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, and promote new energy systems and transmission grids based on renewables-focused energy generation system, including solar energy.

#### **National Development Plan, 2021-2030**

This plan underpins the National Planning Framework 2018-2040, and it sets a framework for investment priorities which includes expenditure commitments to

secure a wider range of Strategic Investment Priorities which include support for a Transition to a Low Carbon and Climate Resilient Society.

### **National Renewable Energy Action Plan (NREAP)**

The NREAP was submitted to the European commission in 2010. It sets out Ireland's approach to achieving its legally binding targets, with a target of 40% of electricity consumption to be from renewable sources by 2020. A third progress report on the NREAP was submitted to the European commission in April 2016 which detailed installed capacity of solar power to be 1.38 MW.

### **Ireland's Transition to a low carbon Energy Future 2015-2030**

This White paper on Energy policy (Department of Communications, Energy and Natural Resources) – December 2015 sets out a vision to reduce greenhouse gas (GHG) emissions by between 80% and 95% compared to 1990 levels, by 2050, falling to zero or below by 2100. It states that new energy solutions such as bioenergy, solar photovoltaic (PV) and offshore energy mature and become more cost effective they will be included in the renewable energy mix.

### **Planning and Development Guidance Recommendations for Utility Scale Solar Photovoltaic Schemes in Ireland (October 2016)**

This is a research paper by Future Analytics Consulting contains a set of recommendations on planning policy and development guidance which may contribute to the evidence base that will inform the development of Section 28 planning guidance for Utility Scale Solar Photovoltaic (USSPV) developments in Ireland. Recommendations include that the development plans set out policy objectives to support USSPV development and put in place development management standards. Agricultural lands are listed amongst the list of types of locations where such development is particularly suited.

### **NMS Framework & Principles for Protection of Archaeological Heritage, 1999**

This document sets out the basic principles of national policy on the protection of the archaeological heritage, and it seeks to play a major role in avoiding unnecessary

conflict between the requirements of conservation and those concerned with promoting and regulating development. Section 3.0 notes that: - archaeological heritage is non-renewable resource; there is a presumption in favour of avoidance of developmental impacts and that preservation in-situ is the preferred option; if removal cannot be avoided, preservation by record should be applied; carrying out an archaeological assessment where appropriate is the first step in ensuring that preservation in-situ & by record take place; and monitoring is another method of ensuring that preservation takes place. Section 3.6 contains advice on appropriate methods of testing in different circumstances (incl. large scale projects).

### **NMS Solar Farm Developments – Internal Guidance Document, 2016**

This document contains supplementary guidance in relation to solar farm development which is considered to be a new and significantly different category of development to older categories. It notes that solar farms present a combination of extensive area with potentially low levels of ground impact and potential flexibility to avoid impacts. It states that planning applications should be accompanied by an Archaeological Impact Statement which includes desktop studies, field surveys, identification of areas of serious ground disturbance, and visual impact assessment. It states that FI requests should not take the form of blanket requests for geo-physical survey or archaeological testing across the whole development area on the sole grounds that the development is large scale. Any FI requests should be based on specific and verifiable indicators of archaeological potential (e.g., close proximity to known monuments, presence of potential archaeological features identified from aerial photographs or from field walking). Developers should be given the option of submitting revised plans to exclude areas close to known monuments or exclude archaeological features, and that it may be acceptable to deal with areas of unclear archaeological potential by way of a planning condition which requires geo-physical survey and/or testing followed by avoidance or appropriate mitigation.

### **Circular P01/2021 - P&D (Amendment) Regulations 2021 (S.I 9 of 2021)**

This Circular removed the requirements for landowner consent to be submitted with planning applications for services in, on over or under a public road. The amending regulations seek to provide legal certainty so that wind farm operators, as well as

other statutorily approved utility service providers (electricity, broadband, telecommunications etc.), who lay cables or pipes along public roads for the purposes of providing such utility services can proceed with making planning applications without the need to submit the consent of adjoining landowners.

### **Food Wise 2025 (Department of Agriculture, Food and the Marine, 2015)**

This document sets out a 10-year vision for the Irish agri-food industry up to 2025. Subject to following actions identified in the strategy, the sector projections are to increase value of agri-food exports by 85%, increase value added in the agri-food, fisheries and wood products sector by 70%, increase the value of Primary Production by 65% and create an additional 23,000 direct jobs in the agri-food sector. To achieve the projections set out above, Food Wise 2025 identifies c.400 recommendations and actions to achieve sustainable growth.

### **Flood Risk Management Guidelines for Planning Authorities 2009:**

These Guidelines seeks to avoid inappropriate development in areas at risk of flooding and avoid new developments increasing flood risk elsewhere and they advocate a sequential approach to risk assessment and a justification test.

### **Regional Planning Guidelines for the South West Region 2010-2022:**

These Guidelines seek to facilitate the sustainable development of additional electricity generation capacity throughout the region and to support the sustainable expansion of the transmission network. National grid expansion is identified as important for ensuring adequacy of supply. This expansion will also provide a means for facilitating the development and connectivity of sustainable renewable energy resources at both a national and regional level. The Regional Authority seeks to ensure that future strategies and plans for the development of renewable energy, and associated infrastructure development, will promote the development of renewable energy resources in a sustainable manner.

## 6.2. UK Solar Energy Development Guidance

### **PPG for Renewables and Low Carbon Energy (DCLG 2015)**

This guidance includes advice on planning considerations relating to specific renewable technologies (including solar power) and it includes the following points:

- Encourage use of brownfield land.
- Where agricultural land is used, allow for continued agricultural use.
- Use poorer quality greenfield land in preference to higher quality.
- Consider visual impacts, the impacts of glint & glare on the landscape, local residents and aircraft safety, and the potential to mitigate these impacts for example through screening with native hedges.

### **PPG for Renewable & Low Carbon Energy (BRE National Solar Centre - 2013)**

This guidance provides similar advice to the PPG, but also includes advice on EIA and it provides advisory information on planning application considerations.

### **Renewable Energy PG Note 2 – The Development of Large Scale (>50 kW solar PV arrays) – Cornwall (UK) 2012**

This document recognises landscape and visual amenity as one of the most significant impacts and it provides specific guidance on planning considerations.

### **Devon Landscape Policy Group Advice Note No.2 – Accommodating Wind and Solar PV Developments in Devon’s Landscape, 2013**

This document recommends siting solar developments on lower slopes or within folds in gentle undulating landscapes or on flat plateau sites rather than upper slopes or coastal headlands, and in landscapes with a sense of enclosure. Appendix 2 provides a classification of scale from Very small (< 1ha), Small (>1-5ha), Medium (5-10ha); Large (> 10 to 15ha) to Very Large (>15 ha).

### 6.3. County Kerry Development Plan 2015-2021

**Core Objective CS-11:** seeks to Support the National Climate Change Strategy and the National Climate Change Adaptation Framework, Building Resilience to Climate Change on an ongoing basis through implementation of supporting objectives in this Plan, particularly those supporting use of alternative & renewable energy source .... subject to compatibility with environmental designations & legislative requirements.

**Energy Provision AIM:** to support and provide for the sustainable development of indigenous energy resources, with an emphasis on renewable energy supplies.

**Energy objective EP-1** seeks to support and facilitate the sustainable provision of a reliable energy supply in the County, with emphasis on increasing energy supplies derived from renewable resources whilst seeking to protect & maintain biodiversity, archaeological and built heritage, the landscape and residential amenity.

**Energy objective EP-3:** seeks to facilitate sustainable energy infrastructure.

**Energy objective EP-7:** seeks to facilitate the sustainable development of additional electricity generation capacity .....and the sustainable expansion of the network.

**Energy objective EP-8:** seeks to ensure that the siting of electricity power lines is managed in terms of the physical and visual impact of these lines.

**Energy objective EP-11:** seeks to implement the Renewable Energy Strategy for County Kerry (KCC 2012).

**Economic development Objective ES-28:** sets out criterion for economic development projects in rural areas.

**Economic development Objective ES-29:** deals with sustainable farm diversification schemes.

**Rural landscape type:** the site is located within a Rural General area which constitutes the least sensitive landscapes throughout the County.

**Landscape Objective VL-1:** seeks to protect the landscape of the county as a major economic asset and invaluable amenity.

**Landscape Objective VL-3:** seeks to determine the zoning of lands in rural areas having regard to the sensitivity of the landscape.

**Heritage Objectives H-25, 26 & 28:** seek to secure the protection and or preservation of archaeological monuments and features.

**Heritage Objectives H-27:** seeks to ensure that proposed development (due to location, size or nature) which may have implications for archaeological heritage are subject to an Archaeological Assessment which may lead to further subsequent archaeological mitigation (incl. buffer/exclusion zones, monitoring, pre-development testing, excavations and/or refusal). This includes areas close to archaeological monuments, and extensive in area (0.5 ha or more) or length (1km or more).

**Heritage Objectives H-29:** seeks to ensure that development (incl. renewable energy developments) within the vicinity of a recorded monument, zone of archaeological potential or archaeological landscape does not detract from the setting of the feature and is sited and designed appropriately and sympathetically with the character of the monument/ feature/landscape and its setting.

**Archaeological sites:** No RMs within site and several features nearby.

#### 6.4. Recorded Monument designations (nearby)

- Ringfort - KE005-082
- Ringfort - KE010-009
- Enclosure - KE005-081001
- House - KE005-081003
- Bawn - KE005-081003

#### 6.5. Natural Heritage Designations (within 15km)

- Lower River Shannon SAC
- River Shannon & River Fergus Estuaries SPA
- Moanveanlagh Bog SAC & pNHA
- Stacks to Mullaghareirk Mountains, W Limerick Hills & Mt Eagle SPA
- Kerry Head SPA
- Bunnaruddee Bog NHA
- Cashen River Estuary pNHA

## 6.6. EIA Screening

The proposed development is not of any type included in Schedule 5 of the Planning and Development Regulations 2001 (as amended) and it does not meet any of the criteria set out in schedule 7 of the Regulations for determining whether a sub-threshold development would be likely to have significant effects on the environment, with regard to the characteristics of the proposed development, its location and the characteristics of potential impacts. An EIA is therefore not required.



## 7.0 Planning Assessment

- Principle of development
- Archaeology
- Visual amenity
- Glint & glare
- Residential amenity
- Movement & access
- Drainage & flood risk
- Biodiversity & ecology
- Other issues

### 7.1. Principle of development

#### ***Policy compliance:***

The proposed development would comprise the construction of a solar farm on a c.76 ha rural site and a c.5km long grid connection, along with ancillary and associated site works. The proposed solar farm would operate in conjunction with a permitted but not yet constructed 110kV substation on lands to the NE at Tullamore which was granted permission by the Board (ABP-305106-19). The permitted substation would also serve a permitted but not yet constructed solar farm on a c.99ha site at Tullamore which was also granted permission by the Board (ABP-302681-19). The permitted 110kV substation will facilitate the export of the electricity generated by the proposed and permitted solar farm developments to the national grid. The proposed solar farm would have a 35-year lifespan after which it would be decommissioned, and a 10-year planning permission is sought.

The proposed development would comply with national, regional and local planning and environmental policy which supports a move to a low carbon future and encourages the use of renewable resources. National policy recognises the role of solar power. The proposed development would contribute to the national targets set for Ireland which seek to substantially increase for the proportion of the country's electricity generated from renewable sources as part of its mandatory obligation

under the EU Renewable Energy Directive 2009/28/EC. These targets are required to reduce greenhouse gas emissions and to ensure a secure energy supply. The proposed development, which would contribute to the achievement of these targets, would be acceptable in principle. At local level, energy objectives EP-1, EP-3 and EP-7 of the current Development Plan seek to encourage and promote sustainable energy production, whilst Energy objective EP-8 seeks to ensure that the siting of electricity power lines is managed in terms of the physical and visual impact of these lines on both the natural and built environment.

Having regard to the foregoing, I am satisfied that the proposed development, which would operate in conjunction with a permitted 110kV substation, would comply with relevant EU, national, regional and local planning and energy policy, would therefore be acceptable in principle.

***Use of Agricultural land:***

The proposed solar farm would be located on agricultural lands that are mainly currently used for grazing. There is no national guidance in relation to where solar farms should or should not be located and there is no policy which precludes the development of solar farms on agricultural land. It is noted that UK guidance seeks to direct large-scale solar farms to previously developed brownfield sites and it has a grading system for land, ranging from Grade 1 (most productive) to Grade 5 (most marginal) and most agricultural land is mid-range.

At national level, the agricultural strategic vision as set out in Food Wise 2025 supports increasing the value of agri-food, fisheries and wood production sector by 70% and the value of food exports by 85%. The strategy also recommends on-farm diversification along with a suite of recommendations and actions which do not place any restrictions on land use. Having regard to scale and nature of the proposed solar farm on lands upon which sheep grazing could continue, it is unlikely that the proposed development would compromise the grazing value of agri-food or the value of food exports to such an extent that it would outweigh the renewable energy benefits of the proposed development.

At local level, the current Development Plan supports farm diversification and Objective ES-28 sets out criterion for economic development projects in rural areas whilst Objective ES-29 seeks to permit sustainable farm diversification schemes.

There would be local employment opportunities during the construction phase and the development would contribute to a reduced need for energy imports. The dual agricultural use of the lands for grazing could continue with the PV solar arrays in place and it is noted that sheep growth opportunities are envisaged under Food Wise 2025. The shallow nature of the ground works required to support solar arrays and the temporary c.35-year duration of the use would also ensure that there would be no permanent or irreversible loss of agricultural land.

## 7.2. **Archaeology**

The site is located within a landscape that has a rich archaeological heritage and there are many Recorded Monuments and features of archaeological interest in the wider area. There are several Recorded Monuments (incl. Ringforts, Enclosures, House & Bawn) close to the solar farm site in the vicinity of the R553 Listowel Road to the SW and the woodland area to the S and SE (Refer to section 7.3 above for more details). There are no Recorded Monuments or verifiable features of archaeological interest within the c.76ha site which comprises a series of agricultural fields or along the grid connection route. However, it is possible that as yet undiscovered features may remain below ground level, having regard to the archaeological character of the surrounding area.

The NMS 1991 guidance document contains advice on appropriate methods of archaeological testing in different circumstances (incl. large scale projects), whilst the 2016 internal supplementary guidance notes that FI requests for solar farms, which may have low levels of ground impact along with the flexibility to avoid impacts, should not take the form of blanket requests for testing on the sole grounds that the development is large scale, and that such requests should be based on specific and verifiable indicators of archaeological potential. At local level, the current Development Plan contains several objectives which seek to protect and/or preserve archaeological heritage, whilst Objective H-27 seeks to ensure that proposed development (due to location, size or nature) which may have implications for

archaeological heritage are subject to an Archaeological Assessment (Refer to section 6.0 above for more details).

The proposed development would comprise the installation of c.357,500 solar arrays and ancillary development on the c.76ha site (incl. inverter/transformer stations, internal tracks, cabling & fencing), and cabling infrastructure along the c.5km long grid connection to the permitted 110kV substation at Tullamore to the E. (Refer to section 2.0 above for more details). The application was accompanied by Archaeological Impact Assessment Reports which described the characteristics of the receiving environment, assessed potential heritage impacts, and proposed mitigation measures (incl. pre-development testing & buffer zones).

The reports of the Kerry County Archaeologist, which recommended FI in relation to pre-decision archaeological testing due to the scale of the development and in order to determine the full extent of the as yet undiscovered below ground artefacts on the site, and the subsequent refusal of permission in the absence of such details are noted, as is the Council's decision to refuse planning permission (Refer to section 3.0 above for more details).

The first party submit that they are in full agreement that testing should be undertaken at the site prior to commencement of development. However, they do not consider it necessary to undertake pre-development archaeological testing in all areas of proposed ground disturbance as FI prior to issue of a permission. They submit that NMS policy guidance and recent Board decisions in relation to solar farms highlight that pre-construction testing is the most appropriate method, that an unwarranted request for testing has implications for both the applicant and landowners (incl. farming operations, soil productivity & income), and that the Council's refusal of permission could inhibit the delivery of renewable energy. (Refer to section 4.3 above for more details).

It is acknowledged that the site is large, however following a thorough desk study, aerial survey and site walkover of the lands there was no verifiable evidence of the presence of potential archaeological features within the site, notwithstanding the presence of several Recorded Monuments in the vicinity. The 2016 NMS supplementary guidance for solar farms recommends that blanket requests for testing as FI should not be based solely on the fact that the development is large-

scale. The Guidance also contains a series of criteria to determine at what point testing should occur (incl. proximity to known monuments, and the presence of potential features identified from aerial photographs & site walk-overs). The First Party's archaeological surveys confirmed that the site boundary is outside the Zone of Notification for the nearby Recorded Monuments to the SW, S and SE of the site, and that no potential features were captured on aerial drone imagery or identified in the walkover of the fields or along the grid connection route.

As previously stated, the lands have been actively farmed for a considerable period of time although it is possible that as yet un-discovered features may remain below ground level. However, having regard to the information provided by the first party and my own observations whilst on site inspection, I am satisfied that there is no visible or verifiable evidence of any surface level features within the site. Having regard to the relatively low level of ground impact associated with the installation of solar farms and the inherent flexibility in their design and layout, I concur with the first party that the layout of the arrays could be amended to exclude any sensitive features uncovered during pre-construction tests. I note that a buffer of 20m is proposed outside of the extent of the nearby Recorded Monuments. It is also noted that the first party is in full agreement that testing should be undertaken at the site prior to commencement of development. The applicant states that they will prepare licence application for testing and will submit same to DCHG.

The views of DCHG have not been sought in relation to the proposed development, given the absence of any noted features of archaeological interest within the site. However, their views were sought in relation to the permitted solar farm development at Tullamore to the E of the site under ABP-302681-18. This site contains a Recorded Monument (Ringfort - RMP KE010-025). The Kerry County Archaeologist also recommended FI in relation to pre-decision testing, and the absence of such information formed the basis of one of the 3 x reasons of refusal. In deciding to grant permission, the Board had regard to the flexible design of solar farms, and was satisfied that pre-development testing should be required by way of a condition.

Having regard to the foregoing, I am satisfied that archaeological testing results at this site should not form the basis for a refusal. If any features are identified the layout and design of the solar farm can be amended as necessary. I recommend

that a condition should be attached requiring testing, reporting and further agreement with NMS and or Kerry County Council prior to commencement of development. However, in the event that the Board does not agree and considers it necessary to undertake site wide testing prior to the issue of a decision to grant permission, I recommend that the Board requests such further information if it is otherwise minded to grant permission.

### **7.3. Visual amenity**

As previously stated, there is no national guidance in relation to solar farms however various UK guidance documents identify potential impacts on landscape and visual amenity (incl. glint & glare) as two of the main concerns. The guidance recommends that gently undulating landscapes or flat plateau sites are preferable to sensitive locations, and that mitigation of visual impacts could be achieved by way of screening with hedges. It is noted that the c.76 ha site would be classified as Very Large under UK guidance on a scale that ranges from Very Small to Very Large.

The solar farm would comprise a series of photovoltaic panels on c.2.9 high ground mounted frames that would traverse the site from W to E. It would also comprise supporting infrastructure including c.19 x electrical inverter/ transformer stations (c.3.4m high), temporary work compounds, security and stock proof fencing (c.2.8m high), CCTV cameras (c.3.4m high) and satellite mast (c.4m high). Most ducting and cabling within the site would be underground although there would be some overhead cables associated with the proposed c.5km grid connection to the permitted 110kV substation at Tullamore to the E, which would comprise a mix of underground and overhead cables supported by a mix of double and triple wood poles (c.10m to 13m high).

The application was accompanied by a Landscape and Visual Impact Assessment report (LVIA) which assessed potential visual impacts within a 5km radius of the project, and from 13 x viewpoints that encompass sensitive receptors (incl. scenic routes, public roads & nearby houses). The study also included an assessment of cumulative impacts in combination with the permitted solar farm at Tullamore. It concluded that the proposed solar farm and associated infrastructure would be well assimilated within the context of its rural surroundings, and that there would be no

cumulative impacts give the separation distance and dense layers of intervening vegetation.

The proposed development would be located within a rural area that is characterised by agricultural fields which are defined by trees, hedgerows and ditches. The lands slope down gently from N to S towards a wooded area with the River Galey beyond, and there are several features of archaeological interest (incl. ringforts & enclosures) along the SW, S and SE perimeter of the site. The surrounding area is sparsely populated although there are several detached houses and farm buildings located along the regional and local road network to the SW and N and of the site. The site and surrounding lands are not covered by any sensitive landscape or scenic amenity designations and there are no protected views or prospects in the vicinity. The proposed solar farm would occupy a gently sloping site (N to S) within a “Rural General” area which constitutes the least sensitive landscapes that has the capacity to absorb renewable energy developments.

The proposed solar arrays would be set back a significant distance from roadside boundaries and neighbouring houses to the N and W. Although some existing hedgerows would be removed to accommodate the works during the construction phase, it is proposed to replant substantial additional native species hedgerows within the solar farm site and along the boundaries. Having regard to the low sensitivity rating of the surrounding landscape and the gently sloping nature of the site, the low-lying design of the proposed solar farm, the conclusions of the visual impact assessment report, taken in-combination with the boundary setbacks and extensive hedgerow cover, I am satisfied that there would be no significant adverse impacts on the landscape or visual amenity arising from visual intrusion.

Furthermore, the proposed development would not adversely affect the visual amenities of the surrounding area to any significant extent, when viewed from the surrounding road network, any nearby houses or farm buildings, elevated areas to the N of the site.

#### 7.4. **Glint and glare**

The application was accompanied by a Glint and Glare report which identified the potential for reflectance periods on the surrounding area including the road network, dwelling houses and aviation receptors.

The Glint and Glare report identified that glint and glare is geometrically possible at 36 of the 78 road receptor points and this number was further reduced when existing screening by buildings and vegetation was factored into the modelling. The remaining 9 x road receptor points are located to the SW of the site along the R553 (R32, R34, R35, R36, R37, R38, R45, R46 & R52) and theoretically potential reflectance could occur for up to c.24 minutes per day across 100 days per year at these locations. However, the impact was reduced to 4 x receptor points when the proposed vegetative screening (incl. native species hedgerows) was factored into the modelling by way of mitigation (R32, R34, R35 & R36).

The Glint and Glare report also examined possible impacts on c.73 residential dwellings in the surrounding area and it identified that glint and glare is geometrically possible at 25 of these houses. This number was further reduced when existing vegetative screening was factored into the modelling. The remaining 7 x houses are located to the SW of the site along the R553 (H42, H46, H49, H50, H53 & H62) and the period for theoretically potential reflectance would range from c.10 minutes per day across 61 days per year (H53) to c.24 minutes per day across 102 days per year (H62). However, the magnitude of impact was reduced to “None” when the proposed vegetative screening (incl. native species hedgerows) was factored into the modelling by way of mitigation.

The report concluded that any adverse impacts on visual and residential amenities, passing motorists and aviation receptors would be minimal, seasonal and weather dependent. Having regard to the substantial hedgerow planting proposed in the landscaping plans, I am satisfied that the proposed development would not give rise to any significant adverse glint and glare impacts on in the vicinity.



## 7.5. Residential amenity

The surrounding area is sparsely populated although there are several detached houses and farm buildings located along the regional and local road network to the SW and N of the site. The Observers have raised concerns in relation to the proximity of the proposed solar farm to the rear of their houses with respect to visual intrusion, glint and glare, fire risk and noise.

The proposed solar arrays would be located in excess of c.160m from the nearest houses to the N (except for one with a c.65m setback), in excess of c.80m from the nearest houses to the NW, and between c.70m and 100m of the nearest houses to the SW along the R553. Having regard to the gently sloping nature of the lands, the low-lying design of the proposed solar arrays and the substantial separation distance with ancillary support structures (incl. electrical inverter/ transformer stations), I am satisfied that these houses which would not be overlooked or overshadowed by the solar farm and its ancillary infrastructure. The solar farm would not have an adverse impact on the visual amenities of the neighbouring houses, subject to the implementation of the proposed landscaping plans which include extensive native species hedgerow planting within and around the site.

The potential glint and glare impacts on c.73 residential dwellings in the surrounding area is assessed in section 7.4 above.

Concerns raised in relation to the risk of fire and noise are noted, however I am satisfied that there no evidence to indicate that operational solar farms pose a fire risk or give rise to excessive levels of noise disturbance in the surrounding area.

Notwithstanding these conclusions, no additional artificial lighting should be installed or operated on site without a prior grant of planning permission and the CCTV cameras should be fixed and angled to face into the site and not directed towards the road or nearby houses. These concerns could be addressed by way of a planning condition.

Having regard to the foregoing, I am satisfied that the proposed development, would not seriously injure the residential amenities of houses in the surrounding area to any significant extent.

## 7.6. Movement & access

The proposed solar farm development would be located to the E of the Listowel Road (R533), within the 80km/hr speed zone and along a straight section of carriageway. This road is moderately trafficked, operational speeds are relatively high, and several existing agricultural and residential sites have direct access off it. The solar farm would also be located to the S of the Lisselton Road (L-1008) within the 80km/hr speed zone and along a straight section of carriageway which rises up from W to E. This road carries local traffic, operational speeds are relatively low, and several existing agricultural and residential sites have direct access off it.

The application was accompanied by a Site Access Report and an Outline CEMP which included a traffic assessment. The traffic and site access reports described the existing traffic environment, estimated future growth and trip generation rates, assessed the construction and operational traffic and predicted the potential impact of the proposed solar farm on the road network, junctions and bridges. The Glint and Glare report assessed potential impacts on traffic safety and vehicles using the surrounding road network as a result of reflectance.

Construction traffic would access the site via a dedicated haul route along the N69 from Foynes Port to the NE and R553 to the SW and the along the L-1008 to the N. It is anticipated the construction phase would result in an average of c.8 vehicles per working day over the c.24-week period for the overall project (solar farm & grid connection). The traffic report indicated that the road network has adequate spare capacity to accommodate this temporary increase in volumes. The operational traffic, which would use the same entrance off the L-1008 and be in the order of 2 to 4 vehicle visits per month as the solar farm would be managed remotely.

Vehicular access to the site would be off the Lisselton Road (L-1008) to the N via an existing agricultural entrance that would be upgraded to accommodate construction traffic. This access would provide for sightlines of 160m in each direction from a c.2.5m setback, junction corners that can accommodate large articulated vehicles, advance warning signs before the entrance and a booking management system for traffic entering and leaving the site. A network of internal access tracks would traverse the c.76ha site.

The potential glint and glare impacts on the surrounding road network is assessed in section 7.4 above, and I am satisfied that the proposed solar farm would not have an adverse impact on the visibility or safety of passing motorists.

Having regard to the foregoing, I am satisfied that the proposed solar farm development would not give rise to an excessive level of traffic generation or disturbance along public roads during the construction phase. The road network and junctions have sufficient capacity to accommodate additional traffic, and the upgraded vehicular access off the L-1008 would have adequate visibility in either direction, and sufficient space to accommodate the largest of the construction vehicles. The modest vehicular movements generated during the operational stage would have no discernible impact on the road network. The proposed development would not give rise to a traffic hazard or endanger the safety of other road users.

#### **7.7. Flood risk and drainage**

The application was accompanied by a site-specific Flood Risk Assessment Report (FRA) which described the receiving environment and calculated the risk of the proposed development contributing to, or being affected by fluvial flooding, along with a Drainage Report which described the drainage proposals for the site.

##### ***Flood risk:***

The solar farm lands mainly drain to the River Galey to the SE of the site which has an upstream catchment of c.184sq.km that mainly comprises agricultural lands. A small section in the NW drains to the River Glouria which also has an upstream catchment that mainly comprises agricultural lands. The proposed c.5km long grid connection route would cross under 3 x small watercourses which also discharge to the River Galey (North Knockenagh, Garryard & Drombeg Streams).

OPW records indicate that no flood events were recorded on the overall lands but that 2 x events previously occurred upstream along the River Galey to the far SE, and OSi Historic Flood Maps indicate that sections of this river may have been flooded in the past. The OPW's Preliminary Flood Risk Assessment (PFRA) indicates that there is a risk of fluvial flooding along sections of the River Galey although the study did not identify this particular section as being an Area for Further Assessment (AFA). The OPW's Preliminary FRA confirms that the proposed solar

farm would be located within Flood Zone C where there is a low probability of fluvial flooding and that sections of the grid connection route in the vicinity of the 3 x small watercourses may be located within Flood Zone A and Flood Zone B.

The applicant's Site-specific FRA states that the underground cables would be laid c.1m below ground level with no resultant impacts on overland flow paths or fluvial flood water volumes associated with these watercourses. The cables would also be laid underneath stream channels by way of directional drilling with no resultant impacts on channel capacity at these locations, subject to the implementation of best construction practice and mitigation measures (incl. a 10m set back from riverbanks & silt fencing to trap released sediments).

***Drainage:***

The proposed c.76ha solar farm would be located within a series of c.21 agricultural fields that slope down gently from N to S which are currently used for grazing. The applicant's Drainage Report states that the installation of solar arrays, which do not require substantial site excavations or resultant hard surfaces, would not have a significant impact on existing drainage patterns in the area, subject to good design and best construction practice (incl. generous separation distances between arrays, adequate angles, grass reseeding & active management, and regular inspection & maintenance of existing drains). The applicant's Drainage Report referenced a paper in the Journal of Hydrological Engineering which confirmed that solar farms do not have a significant effect on runoff volumes and peak flows subject to the maintenance of an underlying permeable grass surface (copy on file).

***Conclusion:***

Having regard to the foregoing, I am satisfied that the proposed development which would retain existing grazing lands with minimal new hard surfaces, would not give rise to a flood risk downslope of the works. Furthermore, the proposed solar farm would not be vulnerable to fluvial flooding because of its location within Flood Zone C and the separation distance with the Rivers Galey and Glouria. The construction methodology for the underground sections of the grid connection cable in the vicinity of the North Knockenagh, Garryard and Drombeg Streams, which may lie with Flood Zones A and B would ensure that the works would not contribute to flooding.

## 7.8. Biodiversity & ecology

The application was accompanied by two Ecological Impact Assessment reports (Terrestrial & Aquatic).

### ***Terrestrial ecology:***

The Terrestrial report described the receiving environment (incl. agriculturally improved grassland, hedgerows & trees, drainage ditches, and various related bird & mammal species), the various project elements, the nature of the survey work (desk study & field surveys), designated sites within 15km (incl. the Lower River Shannon SAC which has a direct aquatic connection to the site, and several wetland pNHAs). It noted the recorded or expected presence (based on suitable habitat) of protected species within a 2km radius (incl. common frog in drainage ditches, foraging Otter along the Garryard Stream, & foraging badger to the adjacent woodland). The lands do not contain suitable roosting habitat for bat although the network of hedgerows may provide foraging opportunities. No invasive species were recorded within the site although Indian Balsam was recorded in a drainage ditch along a local road (N).

Having regard to the nature of the receiving environment for the proposed solar farm and grid connection route, the report did not identify any significant potential adverse impacts on habitats and species as a result of the construction works or during the operational phase. Although the proposed works would result in the loss of hedgerows and general disturbance during the construction phase, the landscaping plans provide for additional and substantial native species hedgerow planting. There would be a significant net gain in hedgerow related habitats with resultant positive impacts for biodiversity (incl. nesting foraging birds, bees & other invertebrates and foraging bats). Pre-construction Badger surveys would be undertaken, with buffer zones provided and Derogation Licences sought from NPWS as required. Bird and bat boxes would be provided. An invasive species plan would be put in place for dealing with any invasive species present on the site.

The proposed minor amendments to permitted solar farm at Tullamore (ABP-302681-18) which would comprise laying underground cabling under the access track off the L-1009 local road is considered acceptable with no additional adverse impacts anticipated. This would be subject to the continued implementation of the

terms and conditions for ABP-302681-18 whereby no works should take place within c.150m of any active otter holt at which breeding females or cubs are present.

Having regard to the foregoing, I am satisfied that the proposed development would not have an adverse impact on terrestrial habitats, or any rare or protected species present within the proposed substation site, along the grid connection route surrounding farmland.

***Aquatic ecology:***

A similar range of surveys were undertaken in relation to aquatic ecology as for terrestrial ecology. The Aquatic report described the aquatic receiving environment of the River Galey, River Glouria and the 3 x smaller watercourses that would be traversed by the grid connection route (North Knockenagh, Garryard & Drombeg Streams). This included river substrate, flow types, aquatic vegetation, aquatic invertebrates, fisheries and water quality (EPA Q3-4 - Moderate to Good status), and the presence of field drains that connect the project site to the two main rivers, both of which in turn drain to the Lower River Shannon SAC. No suitable fisheries spawning/nursery or freshwater pearl mussel habitats were identified in either river which would accord with the Q3-4-status of the rivers and previous arterial drainage works along the River Galey, however they may provide a migration route for fish.

The report identified potential adverse impacts on water quality and aquatic life as a result of sedimentation during the construction phase and contaminated run-off during the operational phase. However, the proposed mitigation measures for the construction phase (5 & 10m buffers, management of sediment loss, hydrocarbons & concrete) and operational phases (sediment loss) and the on-site drainage arrangements would ensure that the on-site ditches and the receiving watercourses would be protected.

I am satisfied that the proposed development, which would implement similar mitigation measures and drainage arrangements as the permitted solar farm and substation developments at Tullamore, would not have an adverse impact on water quality of aquatic life.

### **Conclusion:**

Having regard to the foregoing, I am satisfied that the proposed development of the solar farm and grid connection would not have an adverse impact on biodiversity and ecology either on its own or in combination with the permitted solar farm and substation at Tullamore that it would be connected to.

### 7.9. Other issues

**Amendments:** the minor amendments to the permitted solar farm at Tullamore (ABP-302681-18) which would comprise laying underground cabling under the access track off the L-1009 local road are considered acceptable with no additional adverse impacts anticipated.

**Construction works:** The proposed works would be carried out over a c.24-week period, and in accordance with the submitted Outline Construction Methodology and Construction and Environmental Management Plan. These plans contain environmental mitigation measures (incl. for ecology, sediment control, invasive species, archaeology, waste, dust & noise), all of which are acceptable.

**Environmental Impact Assessment:** The concerns raised by the Observers in relation to this matter are noted and screening was carried out in section 5.4 above which concluded that the submission of an EIAR was not required.

**Project splitting:** The concerns raised by the Observers in relation to this matter are noted. However, I am satisfied that the separate applications for the solar farm developments and substation do not give rise to project splitting, as solar farms do not fall within the scope of Schedule 5 for which EIA is required.

**Fire risk, noise, EMF & public health:** The concerns raised by the Observers in relation to public health risks are noted however, there is no evidence to indicate that solar panels pose a fire risk, cause noise disturbance or that the resultant transmission of electrical energy poses a risk to public health.

## **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.

### **8.2. The Natura Impact Statement**

The application was accompanied by a Stage 1 Screening for Appropriate Assessment (AA) report and a Stage 2 Natura Impact Statement (NIS). These reports described the site and the proposed development, and they utilised the results of the desk studies and field surveys that accompanied the application. The NIS and AA Screening reports confirmed that the proposed development would not be located within any European site. The AA screening exercise identified 5 x European sites within a 15km radius of the proposed works, it had regard to the submitted ecological desk studies and field surveys (incl. water quality and aquatic & terrestrial ecology), and it screened out the sites which would not be affected by the proposed development.

The NIS identified the Lower River Shannon SAC (Site code: 002165) as the only European site that has the potential to be affected by the proposed development and it listed the Qualifying Interests and Conservation Objectives for this site. The NIS identified the potential sources of direct and indirect impacts on this site, assessed the potential impacts relative to its Conservation Objectives, had regard to the relevant desk surveys and field studies and concluded that the risk for the habitats and species which are designated as Qualifying Interests for the SAC was minimal subject to the implementation of a mitigation measures to protect water quality.



The NIS formally concluded that with the implementation of best practice and the recommended mitigation measures there will be no potential for direct, indirect or cumulative impacts arising from the proposed development, either alone or in combination with any other plans or projects. The integrity of the Lower River Shannon SAC will not be adversely affected. No reasonable scientific knowledge doubt remains as to the absence of such adverse effects.

### 8.3. AA Screening Assessment

The main issues related to ecology are summarised and assessed in Section 6.6 (Planning Assessment-Biodiversity & Ecology) of this report. These sections should be read in conjunction with this assessment.

The proposed development would not be located within an area covered by a European site designation and it not relevant to the maintenance of any such European site. The European sites located within a 15km radius of the proposed development, their Qualifying Interests, separation distances from the site boundary (solar farm & grid connection route) and connecting pathways are listed below. The Conservation Objectives seek to maintain the favourable conservation condition.

European site	Qualifying Interests	Distance	Connection
<b><i>Lower River Shannon SAC (002165)</i></b>	Freshwater Pearl Mussel Sea, Brook & River Lamprey Atlantic Salmon & Otter Floating river vegetation Molinia meadows & Alluvial forest Sandbanks, Mudflats & Sandflats Estuaries, Coastal lagoons & Reefs Large shallow inlets & bays Perennial vegetation & Vegetated Sea cliffs Atlantic & Mediterranean salt meadows Salicornia & other annuals Bottlenose Dolphin	c.0.5km SE (GC) c.1.5km SE (SF)	Connecting pathway via on site ditches & watercourses.
<b><i>Moanleanvagh Bog SAC (002351)</i></b>	Active & Degraded raised bogs Depressions of peat substrates	c.7km SE (GC) c.10km SE (SF)	No connecting pathway

<b>River Shannon &amp; River Fergus Estuaries SPA (004077)</b>	Cormorant & Whooper Swan Light-bellied Brent Goose Shelduck, Wigeon & Teal Pintail, Shoveler & Scaup Ringed, Golden & Grey Plover Lapwing, Knot & Dunlin Black-tailed & Bar-tailed Godwit Curlew, Redshank Greenshank Black-headed Gull Wetland and Waterbirds	c.5km N (GC) c.10km N (SF)	No connecting pathway or suitable habitat
<b>Stacks to Mullaghareirk Mountains, W Limerick Hills &amp; Mount Eagle SPA (004161)</b>	Hen harrier	c.10km E (GC) c.10km S (SF)	No connecting pathway
<b>Kerry Head SPA (004189)</b>	Fulmar & Chough	c.17km W (GC) c.11km W (SF)	No connecting pathway or suitable habitat

I am satisfied that all but one of these sites can be screened out of any further assessment because of the nature of the European site, the absence of Qualifying Interests downstream or in the vicinity of the works, the absence of an aquatic or realistic mobile connection between the European site and the proposed solar farm site and grid connection route, the absence of suitable foraging habitat (given that the lands are used for agricultural grazing), or the location of the European site significantly outside of the core foraging range of birds identified in the SNH Guidance Assessing Connectivity with SPAs document. The relevant European site that remains after the AA Screening exercise is the Lower River Shannon SAC (Site code: 002165).

#### 8.4. AA Screening Conclusion

In conclusion, having regard to the nature and scale of the proposed development, to the separation of the proposed solar farm site and grid connection route from the European site, to the nature of the qualifying interests and conservation objectives of the European sites and to the available information as presented in the submitted documents regarding ground and surface water pathways between the application

site and the European sites and other information available, it is my opinion that the proposed development has the potential to affect one of the European sites having regard to the conservation objectives of the relevant site, and that progression to a Stage 2 Appropriate Assessment is required.

#### **8.5. Appropriate Assessment**

According to the NPWS Conservation Objective Series the Lower River Shannon SAC (Site code: 002165) stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head in Kerry Head for c.120 km and it encompasses the Shannon, Feale, Mulkear and Fergus estuaries. The rivers within the Feale sub-catchment include the River Galey which is located to the SE of the proposed solar farm and grid connection route. The Feale catchment contains semi-natural habitats, such as wet grassland, wet woodland, marsh and floating river vegetation. Sea, Brook and River Lamprey and Salmon are found within this SAC including the River Feale which is also a designated Salmonid Water. Freshwater Pearl Mussel is present in the N section of the SAC in the River Cloon in County Clare. The River Glouria, which is located to the NW of the site, drains to the Lower River Shannon SAC via the Cashen River Estuary to the SW. The watercourses within the SAC are at risk from poaching, land reclamation, flood relief dredging, and gravel extraction poses a major threat on the River Feale.

The accompanying Aquatic Ecological Impact Assessment report concluded that no suitable fisheries spawning/nursery or freshwater pearl mussel habitats were identified in either river which would accord with the Q3-4-status of the rivers and previous arterial drainage works along the River Galey, however the watercourses may provide a migration route for fish. The report identified potential adverse impacts on water quality and aquatic life as a result of sedimentation during the construction phase and contaminated run-off during the operational phase. However, the proposed mitigation measures for the construction phase (incl. 5 & 10m buffers, management of sediment loss, hydrocarbons & concrete) and operational phases (sediment loss), and the on-site drainage arrangements would ensure that the on-site ditches and the receiving watercourses would be protected.

Based on the information contained in the NPWS Conservation Objective Series document for the Lower River Shannon SAC (incl. the Notes section for each habitat or species & the accompanying Maps), the results of the applicants Aquatic Ecological Impact Assessment report, and my examination of the site and surrounding area, I am satisfied that all but 5 of the Qualifying Interests for this SAC can be screened out of any further assessment because of the nature or location of the Qualifying Interest, its absence downstream or in the vicinity of the works, and the EPA Q3-4 water quality status and nature of the substrate in the River Galey in the vicinity of the site. The relevant details for the remaining Qualifying Interests for the Lower River Shannon SAC are summarised below.

<b>Qualifying Interest</b>	<b>Conservation Objective</b>	<b>Attributes &amp; Targets</b>
<b><i>Sea, Brook &amp; River Lamprey</i></b>	To maintain the favourable conservation condition of these species.	Distribution, population structure & density of juveniles, extent & distribution of spawning habitat & availability of juvenile habitat.
<b><i>Atlantic Salmon</i></b>	To maintain the favourable conservation condition of this species.	Distribution, number of adult spawning fish, salmon fry abundance, out-migrating smolt abundance and number & distribution of redds.
<b><i>Otter</i></b>	To maintain the favourable conservation condition of this species.	Distribution, extent of habitat, couching sites & holts, available fish prey & barriers.

**The potential direct effects relate to:**

- Loss of Qualifying Interest habitat and/or species.

**The potential indirect effects relate to:**

- Transport of sediments and pollutants in ground or surface water flowing into the SAC via on-site tributaries which could affect water quality and riverbed substrates, with a resultant impact on the life cycles and populations of the qualifying interest species of Lamprey & Salmon.

- Transport of sediments and pollutants in ground or surface water flowing into the SAC via on-site tributaries which could affect water quality and riverbed substrates, with a resultant impact on the availability of prey species for Otter.
- Barriers to movement along watercourses and tributaries could affect commuting and foraging Otter.

The River Galey is located to the SE of the site boundary of the solar farm and grid connection route (c.500m & 1.5km respectively), the River Glouria is located to the NW of the solar farm site (c.150m) and the overall lands ultimately discharge to the Lower River Shannon SAC via on-site drainage ditches and downstream watercourses. The bulk of the solar farm site and grid connection route drain into the River Galey which flows into the River Feale, both of which form part of the Lower River Shannon SAC. The c.5km long grid connection route would traverse 3 x watercourses (North Knockenagh, Garryard & Drombeg Streams) which also drain into the River Galey. The River Glouria flows SW to join the River Feale at the Cashen River Estuary over an aquatic distance of c.8km where the estuary forms part of the Lower River Shannon SAC. There would be no loss of habitat or any other significant **direct** effects because of the proposed works.

The proposed solar farm and grid connection route would be located on lands that are connected to the Lower River Shannon SAC via on-site drainage ditches and watercourses and there is potential for **indirect** effects on water quality during the construction and operational phases. However, the construction phase mitigation measures would ensure that any fine sediments released during the excavation and construction works, or any contaminants resulting from accidental spills or accidents would not reach the SAC. There would be no resultant adverse effects on QI fish species (**Lampreys & Salmon**), water quality, aquatic prey species or migratory routes, or their Attribute and Targets (incl. distribution, population structure & density of juveniles, extent & distribution of spawning habitat & availability of juvenile habitat). The existing network of drains and watercourses that traverse the lands would ensure that the commuting patterns of **Otter** would not be adversely affected with no resultant adverse effects its Attribute and Targets (incl. distribution, extent of

habitat, coaching sites & holts, available fish prey & barriers). The post-construction monitoring during the operational phase would continue to protect water quality, although this is not required to reach a conclusion of no adverse effect.

It can be reasonably concluded on the basis of best scientific knowledge therefore that the proposed development, both on its own and in-combination with the previously permitted solar farm and substation at Tullamore, will not adversely affect the integrity of the Lower River Shannon SAC (Site code: 002165) in view of the sites' Conservation Objectives.

**Conclusions:**

I concur with the conclusions reached in the NIS Statement that the proposed solar farm and grid connection route will have no significant adverse effects (direct, indirect or in-combination) on the Conservation Objectives or Qualifying Interests for the Lower River Shannon SAC (Site code: 002165) or for any other European Site.

**8.6. Appropriate Assessment conclusion**

I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the European site Code No. 002165 or any other European site, in view of the site's Conservation Objectives.

## 9.0 Recommendation

Arising from my assessment of this appeal case I recommend that planning permission should be granted for the proposed development for the reasons and considerations set down below, and subject to the attached conditions.

## 10.0 Reasons and Considerations

Having regard to the provisions of national and regional policy objectives in relation to renewable energy, to the “Rural General” designation of the area in the current Kerry County Development Plan 2015-2021, the nature and scale of the proposed development, the continued agricultural use and improved biodiversity which would result and the proximity of a potential grid connection, 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 residential amenities of property in the vicinity, would not have unacceptable impacts on the visual amenities of the area, would not adversely affect the archaeological or natural heritage, would be acceptable in terms of traffic safety and convenience and 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 Lower River Shannon candidate Special Area of Conservation (Site Code 002165) is the only European Site 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 Site, namely, the Lower River Shannon candidate Special Area of Conservation (Site Code 002165), 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 Site.

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 Site, in view of the site's 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, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

**Reason:** In the interest of clarity.

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

**Reason:** In the interest of clarity and having regard to the sale and nature of the proposed development.

3. (a) All structures including foundations hereby authorised shall be removed not later than 35 years from the date of commissioning of the development, and the site reinstated unless planning permission has been granted for their retention for a further period prior to that date.

(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. 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.

4. The mitigation measures identified in the Natura Impact Statement and other plans and particulars submitted with the planning application, shall be implemented in full by the developer, except as may otherwise be required in order to comply with the conditions of this permission.

**Reason:** In the interest of clarity and protection of the environment during the construction and operational phases of the proposed development.

5. 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 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) Each fencing panel shall be erected such that for a minimum of 300 millimetres of its length, its bottom edge is no less than 150 millimetres from ground level.
  - (d) The solar panels shall have driven or screw pile foundations only, unless otherwise authorised by a separate grant of planning permission.
  - (e) Cables within the site shall be located underground.

**Reason:** In the interest of clarity, of visual and residential amenity, to allow wildlife to continue to have access to and through the site, and to minimise impacts on drainage patterns and surface water quality.

6. The landscaping proposals shall be carried out within the first planting season following commencement of construction of the solar PV array. All existing hedgerows (except at access track openings) shall be retained. The landscaping and screening shall be maintained at regular intervals. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those original required to be planted.

**Reason:** To assist in screening the proposed development from view and to blend it into its surroundings in the interest of visual amenity, and to mitigate any glint impact from the proposed development upon adjoining residential amenities.

7. 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 investigations) relating to the proposed development.
- (b) Employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works.

The assessment, which shall include a programme of archaeological testing, 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, avoidance and/or 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 site and to secure the preservation and protection of any remains that may exist within the site.

8. The construction of the development shall be managed in accordance with a final Construction and Environmental Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including hours of working, noise management measures, invasive species management plan and off-site disposal of construction /demolition waste.

**Reason:** In the interests of public safety and residential amenity.

9. The developer shall comply with the transportation requirements of the planning authority for such works and services as appropriate.

**Reason:** In the interest of traffic and pedestrian safety.

10. Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of Irish Water and the planning authority for such works and services as appropriate.

**Reason:** In the interest of public health and to ensure a proper standard of development.

11. 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.

12. 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. The application of any indexation required by this condition 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.

**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.

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Karla Mc Bride

Senior Planning Inspector

13<sup>th</sup> April 2022