



An
Bord
Pleanála

Inspector's Report ABP-308979-20

Development

110kV electricity substation to connect to and serve a solar farm, associated loop-in infrastructure and all ancillary works.

Location

Lysaghtstown, Midleton, Co. Cork.

Planning Authority

Cork County Council

Applicant(s)

Terra Solar II Limited.

Type of Application

Application for approval under Section 182 (A) of the Planning and Development Act.

Observer(s)

Transport Infrastructure Ireland
Alan O'Connor
Daniel & Mairead O'Connell
Liam & Edel Twomey

Maurice & Anne Twomey
Thomas Jones and Lucia Fielding
Eilis & Bernard Walsh
Pam & Tony Mulcahy

Date of Site Inspection

19th February 2021.

Inspector

Sarah Lynch

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1.0 Introduction

1.1. Pre application Consultation

- 1.2. Terra Solar II Limited requested a Pre-Application consultation under Section 182 (E) of the Planning and Development Act 2000, as amended. One pre-application meeting was held with the applicant on the 21st October 2020, whereby the details of the proposed development were presented. The applicant sought the opinion of the Board as to whether the proposed development comprised Strategic Infrastructure Development, pre application reference ABP 307970.
- 1.3. Following consultation, the Board determined that in accordance with Section 182 (A) of the Planning Development Act 2000, as amended, the proposed development comprised of Strategic Infrastructure Development.

2.0 Site Location and Description

- 2.1. The elevated site is situated approximately 3km north-west of Midleton. It comprises a plot of land which is under tillage and which is of stated area of 4.08 hectares. The site is served by the L-7634 local road and an existing field entrance. An existing 110 kV overhead line traverses the south of the site in an east – west direction.
- 2.2. The subject site is described as being part of a permitted solar farm. A permitted 38 kV substation associated with the permitted solar farm was to be positioned on the opposite side of the local road and to the south of an existing farmyard, it is the intention that the proposed development will be developed in place of this permitted substation. There are no residential properties in the immediate vicinity of the site.

3.0 Proposed Development

- 3.1. Terra Solar are seeking a 10 year permission for development at Lysaghtstown Co.Cork for the following development:
- 110kV 4 bay C-type electricity substation (with 33kV customer compound)
 - Two control buildings, lightning protection perimeter security fencing.
 - Security lighting, drainage infrastructure

- Temporary construction compound
- Loop in loop out infrastructure to connect to existing 110kV overhead transmission line including underground 110kV cabling and 2 no. new end masts with 110kV line diversion cabling
- Vehicular entrance and access track from public road
- Ancillary site works including landscaping and berms.

3.2. **Prescribed Bodies**

Transport Infrastructure Ireland –

- An abnormal load assessment should be undertaken to assess the impact of any abnormal weight loads where the load weight falls outside the limits allowed.
- Full assessment of all structures on the national road network along the haul route should be undertaken and the relevant road authorities along the haul routes should confirm their acceptance of the proposals.
- Conditions are proposed in relation to the foregoing issues.

3.3. **Third Party Observations**

3.4. 7 No. third party submissions were received by the Board as outlined above, the issues raised can be summarised as follows:

3.5. Thomas Jones & Lucia Fielding

- The size and scale of the development are unclear and confusing as there are other permissions related to the site.
- Applications have been made quickly due to covid.
- Complex application being dealt with in a piecemeal fashion to the detriment of residents, there is no opportunity for residents to assess the overall plan.
- No public consultation.

- Various solar farms granted and applied for are all sited in an area of scenic beauty with a considerable residential population all which will be adversely affected.

3.6. Maurice & Anne Twomey

- New larger substation proposed which will be more visible.
- Proposal is seeking to avoid new criteria.
- The increasing size of the solar farm development is not acceptable.
- No consultation has occurred.

3.7. Liam & Edel Twomey

- Land is prime agricultural land used for tillage and is adjacent to a coillte forest. The proposed development will negatively impact the forest facility.
- Lack of information available in relation to the cumulative scale of the development.
- In the absence of national guidelines concerns are raised in relation to best planning practice.
- Lack of transparency.
- Scale of development is inappropriate to rural area.

3.8. Pam & Tom Mulcahy

- Timing of application has prevent the community from formulating a shared response to the application.
- Access to information has been difficult.
- Concerns in relation to the visual impact of the development.
- There are more appropriate low-lying lands to accommodate the development.
- Surface water run off has not been accounted for appropriately.
- The community have not been made aware of the complex nature or scale of the proposed development or the kilowatt capacity of the development.

- The development may lead to further extensions to the solar farm.
- Development would set an undesirable precedent for similar development in cork, which would distort land values and have a detrimental impact on the agricultural economy.
- Use of toxic substances arising from construction.
- The proposal is of utility scale, visible from the N25 beside the Celtic interconnector facility.
- No calculations are provided to show impact of rainwater run off from solar array.

3.9. Eilis and Bernard Walsh

- Building of solar farm will impact habitat and be harmful to wildlife.
- Lack of public consultation in relation to solar development, complex planning approach with numerous applications.
- Impact of solar development on Curragh Woods.
- Solar array could lead to release of cadmium into drinking water if damaged in storms.
- Noise pollution from vehicles and damage and congestion to country roads.
- Trucks and diggers would cause flooding.

3.10. Alan O'Connor

- Development would be a source of light pollution.
- Light pollution can have a detrimental impact on biodiversity.
- Dusk to dawn switches are to be utilised in the development meaning lights will be left on when dark.
- Thermal photo controlled switches will be turned off and site inspections will occur during daylight hours, thus there is no reason to include in the design.
- Ecologists report does not make reference to light pollution.
- Thermal photo controlled lights may be switched on inadvertently with station lights coming on automatically at night.

- A sensor light which comes on for a limited period of time is preferable.
- Lights should be directed downwards to areas required to be lit in order to reduce light overspill.
- Light overspill could affect traffic on adjacent roads.
- The intensity of the light can also affect biodiversity with warmer tones having the least impact.
- Conditions in relation to the type, duration, direction and light are recommended.

3.11. Daniel & Mairead O'Connell

- Lack on engagement from developer.
- No national plan for solar farm development.
- Approach to development applications results in lack of transparency.
- Submitter has made numerous objections to previous applications at the development site.
- Overall objective of substation is unclear in relation to the number of solar farms it will serve.
- If the substation is not constructed what will be constructed in its place to serve the solar farms.
- Development will be on productive agricultural lands, it would be better suited to less productive lands.
- Blight on scenic countryside.
- Concerns over impact on wildlife.

3.12. Local Authority Submission

Cork County Council have prepared a submission to the application which is summarised as follows:

- The principle of the proposed development is considered to be compatible with National, regional and local planning policy.

- Permission was previously granted for a 235,500 sqm solar farm on a larger overall site which encompassed the subject site. The permitted development included a 38kV substation compound which was intended to be located to the South East of the existing farm buildings, the current proposal will negate the need for the previously permitted substation.
- The accommodation of the proposed development will require the loss of 10,800sqm of permitted solar panels. A concurrent application has been permitted by Cork County Council to address these changes.
- The subject site is mostly contained in a 4ha site central to the overall landholding. The site is within a high value landscape, the applicant has proposed landscape mitigation in the form of planted berms which are considered to be acceptable. The substation will be seen from VP1 & VP12, however mitigation will effectively screen these views. The Council consider that the development will successfully assimilate into the site.
- No views can be obtained from scenic routes in the area.
- Two lattice towers will be read with existing electrical infrastructure in the area.
- No objection to road widening.
- Road upgrade required to L-7634, this is acceptable, all traffic generation and heavy load delivery routes are acceptable to the Council subject to conditions in relation to number of loads and timelines that do not conflict with peak traffic times, a traffic management plan is requested by way of condition.
- Impacts to archaeology are not expected to arise, there are no recorded monuments in the development site. A condition for a geophysical survey is recommended.
- Long term impacts to residential amenity are not expected to arise, limited impacts associated with development are expected and are considered to be acceptable.
- A detailed surface water management plan is recommended for the relocation of soils and subsoils.
- There are no concerns in relation to flood risk.

- The proposed development is not likely to generate any significant impacts on Natura 2000 sites.
- A net gain is expected in terms of biodiversity in relation to the proposed additional hedging to be planted.
- It is recommended that a condition linking the landscaping plan condition under planning reference 20/6891 should be considered.
- A schedule of conditions are attached to the Council's submission and the Council has no objection to a condition being attached in relation to community gain. No requirement for special conditions has been raised.

Applicant response to submissions

3.13. HWP prepared a submission on behalf of the applicants in relation to the submission received by the Board which is summarised as follows:

- Response to TII
 - No works are proposed or necessary to national roads to accommodate HGV access for construction phase.
 - One abnormal delivery will be needed, this load can navigate the local road network and has been auto tracked to ensure same.
- Response to Cork County Council
 - Welcome general conclusions of the Council's submission.
 - Items relating to transportation relate to the construction period of the development and will be agreed with the Council in the normal course of events prior to the commencement of development.
 - Daily breakdown of HGV movements can be furnished to the Council when pre construction investigations are complete.
 - Access tracks were permitted under original solar farm permission ref 18/6769 as amended under 20/6861, all access track material will be sourced locally.
 - A comprehensive audit of existing drainage networks will be undertaken.
- Third parties

- With regard to Cllr Alan O'Connor's submission, the applicant states that a the specification and location of a number of lighting columns arise from Eirgrid design standards and operational health and safety requirements. There is no operational requirement to have the station light continuously at night. Lights must however be available should they be required for maintenance which would infrequently be required at night.
- Other matters raised – there is an appropriate national, regional and local policy basis to assess and permit the proposed development.
- Perceived fragmented nature of planning applications – there is a clear commercial and technical requirement for the replacement of the 38 kV station. Public consultation has been undertaken.
- A detailed landscape and visual impact assessment has been carried out and notes that the proposed development is well assimilated into the local environment.
- A detailed transport management plan and construction management plan will be submitted to the council prior to the commencement of development.

4.0 Planning History

- 4.1. There are three permissions related to the associated solar farm development.
- 4.2. Under planning reg ref 18/6769 permission for a solar farm development was granted and this included a 38 KV substation. The intention was that the substation would connect the subject phase and other phases of the planned solar farm to the national grid at the existing Middleton 110 kV substation, about 2 km to the east.
- 4.3. Under reg ref 19/5729 and 19/6882 permission was granted for two further phases to the previously permitted solar farm development.

5.0 Policy Context

National Planning Context

5.1. National Planning Framework

- 5.1.1. One of the National Strategic Outcomes (8) set out in the NPF is the “Transition to a Low Carbon and Climate Resilient Society”. It is stated in the NPF that “the National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand”.
- 5.1.2. Section 9.2 of the Plan addresses Resource Efficiency and Transition to a low carbon economy. There are a number of National Policy Objectives which seek to reduce carbon footprint by integrating climate action into the planning system. The NPF states, in relation to energy policy and planning that Ireland’s national energy policy is focused on three pillars: “(1) sustainability, (2) security of supply and (3) competitiveness. The Government recognise that Ireland must reduce greenhouse gas emissions from the energy sector by at least 80% by 2050, compared to 1990 levels, while at the same time ensuring security of supply of competitive energy sources to our citizens and businesses”.
- 5.1.3. The NPF further states that “in the energy sector, transition to a low carbon economy from renewable sources of energy is an integral part of Ireland’s climate change strategy and renewable energies are a means of reducing our reliance on fossil fuels. The forthcoming Renewable Electricity Policy and Development Framework will aim to identify strategic areas for the sustainable development of renewable electricity projects of scale, in a sustainable manner, compatible with environmental and cultural heritage, landscape and amenity considerations.
- 5.1.4. National Policy Objective 55 states: “promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050”.

Regional Planning Context

5.2. Regional Spatial Economic Strategy for the Southern Region

- 5.2.1. The RSES for the Southern Region came into effect in January 2020 and includes Cork. Chapter 8 deals with Water and Energy Utilities with Section 8.2 of the document dealing with the Strategic Energy Grid.
- 5.2.2. It is stated that “the RSES supports a safe, secure and reliable system of transmission and distribution of electricity and the successful implementation of the Ireland’s Grid Development Strategy, Your Grid, Your Tomorrow, prepared by EirGrid. The transmission grid is currently robust enough to service the growth strategy for the Region and demand locations”.
- 5.2.3. The following Regional Policy Objectives are noted:
- RPO 100 - Indigenous Renewable Energy Production and Grid Injection - It is an objective to support the integration of indigenous renewable energy production and grid injection.
 - RPO 219 - New Energy Infrastructure and states that “it is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs”.
 - RPO 222 - Electricity Infrastructure states that “it is an objective to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid’s (2017) Grid Development Strategy (subject to appropriate environmental assessment and the planning process) to serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity”.

Local Context

It is of note that the current Cork County Development Plan is under review and is at pre-draft stage.

Cork County Development Plan 2014-2020

- Chapter 9 of the plan identifies objectives relating to the provision of energy in the County.
- Section 9.2.3 seeks to support the sustainable development of renewable energy sources.
- County Development Plan Objective ED 1-1: Energy Ensure that through sustainable development County Cork fulfils its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the county to assist in meeting renewable energy targets.

Legislative Context

Strategic Infrastructure Development

- 5.3. Section 182A(1) of the Planning and Development Act, 2000 (as amended) requires, where a person (referred to as the 'undertaker') intends to carryout development comprising or for the purposes of electricity transmission, the undertaker shall prepare an application for approval of the development to the Board. Section 182A(9) of the Act states that the term 'transmission' shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999, and for the purposes of section 182A, shall also be construed as meaning the transport of electricity by means of a high voltage line (equal to or greater than 110kilovolts) or an interconnector (whether ownership of the interconnector will be vested in the undertaker or not).
- 5.4. Section 2(1) of the Electricity Regulation Act, 1999 defines transmission as '*...the transport of electricity by means of a transmission system, ... a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying of electricity from a generating station to a sub-station, from one generating station to another, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board may, from time to time, ...specify as being part of the distribution system ...*'
- 5.5. Electric plant is defined as '*any plant, apparatus or appliance used for, or for purposes connected with, the generation, transmission, distribution or supply of electricity, other than by (a) an electric line, (b) a meter..., or (c) an electrical appliance..*'

5.6. Natural Heritage Designations

5.7. The site is not within any European Designated site, however the following sites are located c. 4km south of the site:

- Great Island Channel SAC
- Cork Harbour SPA

Blackwater River (Cork/Waterford SAC) is located c. 10km north of the development site (within a separate water catchment)

5.8. EIA Screening

5.9. The proposed development is not considered to constitute a project with either Annex I or Annex II of the Directive 2011/92/EU as amended by 2014/52/EU or within Part 1 or Part 2 of Schedule 5 to the Planning and Development Regulations 2001, as amended. An Environmental Impact Assessment Report is therefore not required to accompany the application.

6.0 Assessment

6.1. The proposed development as outlined above will comprise of 10 year permission for a 110kV 4 bay C-type electricity substation (with 33kV customer compound) within rural un zoned lands to the north west of Middleton. I have considered the application and the plans and particulars submitted and the submissions received and consider that the issues for consideration before the Board pertain the following:

- Principle of Development
- Visual Impact of development
- Impacts to local biodiversity
- Impacts to residential amenity
- Traffic impacts
- Other Issues
- Appropriate Assessment.

6.2. It is important to note at this juncture that many of the third-party submissions received raise concerns in relation to the impact of the Solar array developments in terms of surface water attenuation, visual impact and impacts to biodiversity, these developments have previously been permitted by Cork County Council. Thus, whilst I acknowledge the concerns of the third parties, it is important to clarify at this juncture that such concerns which relate to the previously permitted Solar array cannot be considered or adjudicated on by the Board within the assessment of the current Strategic Infrastructure Development application. Concerns raised within submission received in relation to the proposed development as described within the public notices will be considered accordingly hereunder.

6.3. It is of further note that said third parties have also raised concerns in relation to the engagement of the public in relation to the current application, the objectors submit that the piecemeal manner in which the Solar farm applications have been lodged, coupled with the current application, has led to confusion and a lack of clarity in relation to the overall development. I have reviewed the consultation documents of the current development and note that all public consultation requirements in terms of advertising the proposed development have been met. Whilst I acknowledge the objectors' frustrations in relation to the current Covid restrictions which prevent the gathering of groups, it is important for the Board to note that the applicant has complied with the statutory requirements in relation to the advertisement of Strategic Infrastructure Developments.

Principle of development

6.4. The proposed development seeks to facilitate the transfer of electricity generated from previously permitted Solar Arrays to the grid and can therefore be considered integral to the generation of renewable energy. Renewable energy development is supported 'in principle' at national, regional and local policy levels, with collective support across government sectors for a move to a low carbon future and an acknowledgement of the need to encourage the use of renewable resources to reduce greenhouse gas emissions and to meet renewable energy targets set at a European Level. National Policy Objective no. 55 of the National Planning Framework is to promote renewable energy use and generation at appropriate locations within the built and natural environment. It is also an action of the NPF under National Policy Objective no. 8 to reinforce the distribution and transmission network to facilitate planned growth and

distribution of a more renewables focused source of energy across the major demand centres. At a local level the Cork County Development Plan 2014 seeks to support the sustainable development of renewable energy sources. It is an objective of the plan under ED1-1 for Cork 'to fulfil its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the county to assist in meeting renewable energy targets'.

- 6.5. Having regard to the foregoing, I am satisfied that the proposed development is acceptable in principle.

Visual Impacts

- 6.6. A Landscape and Visual Impact Assessment has been prepared by Macro Works Ltd on behalf of the applicant. The assessment describes the landscape context of the proposed substation and examines the likely landscape and visual impacts of the proposed development on the receiving environment.
- 6.7. In order to properly examine the visual impact of the development the applicant carried out a desktop study which considered the relevant policy and guidance documents for the lands and surrounding area. Fieldwork was carried out to establish the landscape character of the receiving environment and to refine viewpoints to be used for the visual assessment stage.
- 6.8. When assessing the potential for impacts on the landscape the applicant considered landscape character, value and sensitivity, the magnitude of likely impacts and the significance of landscape effects. The magnitude of a predicted landscape impact is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development. It takes into account whether there is a direct physical impact resulting from the loss of landscape components and or a change that extends beyond the application site boundary that may affect the landscape character of the area. It is noted within the LVIA that the proposed development is located away from surrounding receptor locations and therefore impacts will result entirely from visual intrusion rather than visual obstruction.
- 6.9. According to the Landscape Character Assessment for County Cork the development site is located within the northern periphery of Landscape Character Type 1 – 'City Harbour and Estuary' which is identified as having a 'Very High' landscape value. Such

landscapes are described as Scenic Landscapes with the highest natural and cultural quality, areas with conservation interest and of national importance’.

- 6.10. The site is also in close proximity to the LCT 10b – ‘Fissured Fertile Middle ground’ which are described as ‘landscapes with positive characters and with local or county importance.
- 6.11. It is of note in relation to the LCT 1 Harbour and Estuary landscape that the development site is located more than 4.5km from either the harbour or estuary and is located within the rural area of this LCT which is described as being characterised by a prevalence of infrastructure such as roads, bridges and electricity power lines, it is further stated that agricultural lands in this area have potential for rural diversification due to their proximity to a large centre of population.
- 6.12. As aforementioned the proposed development site is also located proximate to the southern boundary of LCT10b which is characterised by both flatter fertile farmland type and hilly or rugged type landscapes, the applicant considers that the development site identifies more closely with the descriptions of the rural landscape character type 10b. The site lies within the most northern fringes of the LCT 1 where there is almost no coastal influence on landscape setting. The applicant therefore submits that it is not appropriate to assess the proposed development solely in the coastal context of LCT 1, it is further submitted that the proposed development should be considered in a transitional context of the two converging landscapes. Having carried out a detailed site inspection and having reviewed the landscape character types identified within the landscape character assessment of the Cork County Development Plan I am satisfied that the development site is not influenced by coastal characteristics and identifies more closely with the rural characteristics identified within both the LCT 1 and LCT 10b.
- 6.13. I note from the LVIA submitted that two scenic routes which are indicated in the Cork County Development Plan enter the Zone of Theoretical Visibility of the development. These routes are referred to as Scenic Route reference no. S43 – road between Leamlara and Midleton and no. S42 – road at Cashnagariffe, NW Carrigtwohill and Westwards to Caherlag. I note that no views can be obtained of the site from these routes and therefore I am satisfied that the visual value of these routes will not be impacted upon by the proposed development.

- 6.14. In order to assist with the identification of specific areas of concern the applicant prepared a Zone of Theoretical Visibility map. It is stated that the ZTV map has been generated from the uppermost roof profile of the main substation building as this is the bulkiest and potentially most visible aspect of the proposed development. I note that the applicant states that the ZTV is based on bare ground visibility and does not take into account features such as trees, buildings or hedges. Visibility arising from the ZTV is therefore based on land contours and illustrates that visibility to the site is available to low lying lands situated to the east, south east and south of the development with no visibility from lands to the north and west of the site.
- 6.15. An analysis of the digital surface model demonstrates that, when existing features are taken into account, there is a significant reduction in the likely visibility throughout the immediate surrounds of the proposed development (within 1km) and in many cases visibility has been eliminated.
- 6.16. In order to ensure the accuracy of the foregoing the applicant selected 12 no. viewshed locations from which the visibility of the proposed development was examined in detail. Details of viewshed locations are outlined in table 1-5 of the LVIA and an analysis of visual receptor sensitivity at the viewshed is outlined in table 1-7.
- 6.17. I note that a number of submissions raise concerns in relation to visual impacts arising from the proposed development to the surrounding landscape. Of particular concern was the potential for visual impacts to arise in relation to Curragh Woods which is described as a significant amenity for members of the public. I note from the LVIA submitted that visual impacts in relation to these woods has been examined, in particular in relation to 2 no. viewpoints identified within the Cork County Development Plan as specified above. It is stated within the LVIA submitted that one of the viewpoints identified in the Cork plan is located behind an elevated ridge to the north and is out of sight of the development, this has therefore been discounted from further assessment. The other which is located to the north of the development site just outside of a densely wooded area has been included as a viewshed location within the specific viewshed analysis as outlined in table 1-5 and 1-7 of the LVIA.
- 6.18. The conclusions of the viewshed analysis carried out in relation to the significance of visual impact on the Curragh Woods is slight to imperceptible. It is stated that the roof of the proposed substation is likely to be most noticeable due to its geometric form

and dark tone, whereas the various vertical elements such as pylons, gantries and lighting masts are difficult to discern against the distant terrain backdrop and beyond existing and mitigation vegetation (associated with the permitted solar farm). The substation development will effectively be read in conjunction with the permitted solar farm and will not appear ambiguous in the landscape. It is stated that once mitigation planting matures there will be a softening and blending of the development within the landscape.

- 6.19. With regard to the remaining viewshed locations it is stated that these viewpoints are attributed visual receptor sensitivity ranging from high to low in this diverse hinterland context. All except two of the viewpoints analysed were deemed to have an imperceptible visual impact from the proposed development due to screening by landform and vegetation or the permitted solar array. It is stated that even when visible the proposed substation is visually absorbed by its surrounding context and does not have a material bearing on visual amenity.
- 6.20. In relation to VP12 which was the other viewpoint whereby impacts were slight to imperceptible, impacts relate to the loss of a short section of roadside treeline where a new entrance is proposed. Whilst I acknowledge that these impacts will arise I do not consider such impacts to be significant or of such a magnitude to warrant a refusal of planning permission.
- 6.21. The LVIA submitted states that after carrying out the foregoing analysis it is apparent that the highest level of visibility occurs within agricultural lands within 300m of the development. It is further stated that most of the residents will have little or potentially no visibility of the main substation building and ground-based activity. I note that the applicant has located the proposed substation within an area of the site that benefits from natural terracing which will assist with visual screening and the absorption of the development into the landscape.
- 6.22. Cumulative visual impacts were also considered in the context of surrounding development and were not considered to arise.
- 6.23. I have considered all of the information submitted with the planning application and note that as outlined above the proposed development will be visible within the landscape from certain viewpoints, this is unavoidable given the scale of the

development, however I am satisfied that the magnitude of such impacts is not significant.

Impacts to local biodiversity.

- 6.24. An Ecological Impact Assessment Report has been prepared by HW Planning Ltd on behalf of the applicant which provides an overview of ecology within the proposed development site. This report also examines the potential ecological effects arising from the development. The report is informed via a desktop review and a baseline field assessment which were undertaken in May and June 2018 and updated in September 2020. It is important to note that the proposed development site is not within or directly adjacent to any designated site. The nearest of such designated sites is Leamlara Wood pNHA located c. 0.76km north west of the site. It is stated within the report submitted that there are 18 no. pNHAs, 2 no. SACs, and one SPA within a 15km radius of the proposed development.
- 6.25. It is also stated within the report submitted that many of the sites identified within a 15km radius are designated for habitat and do not contain fauna that could suffer from disturbance or displacement effects as a result of the construction proposed. Notwithstanding the foregoing a number of pNHA sites contain bird species which overlap with the Cork Harbour SPA. Ex-situ effects will be considered further within the Appropriate Assessment Section of this report. The impact of the proposed development on European sites is addressed in detail in Section 7 of this report. It is of importance to note at this juncture that the NIS Report submitted considers the potential for effects on both the Great Island Channel SAC and Cork Harbour SPA arising from the development and in combination with other plans or projects and concluded that the proposed development would not give rise to adverse affects.
- 6.26. It is important to note at this juncture that I am satisfied, based on the information submitted with the file and discussed within the Appropriate Assessment section below, that the applicant has adequately demonstrated beyond reasonable scientific doubt that the proposed development would not adversely affect the integrity of the Great Island Channel SAC and Cork Harbour SPA in view of these sites Conservation Objectives.
- 6.27. Potential impacts on local biodiversity associated with the proposed development include loss of habitat and disturbance or displacement of species. As mentioned

above the assessment of impacts is supported by an ecological assessment comprising a desk top study and habitat surveys. Habitat's present were classified to level three using the Fossit classification scheme.

- 6.28. The habitat survey found that the proposed development site is located within a highly modified landscape dominated by intensive agriculture. Arable crops are the main agricultural practice with the majority of the site being used for barley, fodder beat and tilled land. Two fields comprise of improved grassland pasture with evidence of recent sheep grazing.
- 6.29. Fields are divided by a network of hedgerows, vegetated earth banks and treelines. The ecological value of each habitat type within the development site was examined within Section 3.2 of the ecological report submitted, within which it was concluded that habitats were of local importance. No legally protected or rare plant species were recorded within the proposed development site.
- 6.30. Cherry laurels, which are an invasive plants species, were recorded at a number of locations, in particular along the margin of the Glounamuck woods to the eastern side of the site and to lesser degree along the southern. This species is not within the third schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations and as such I am satisfied that the management of this species within the site can be adequately controlled by way of condition, should the Board be minded to grant permission.
- 6.31. In relation to birds a total of 28 species were noted during site walkovers. No avian species of the EU Birds Directive were recorded during the field survey. It is suggested that some bird species noted on site were attracted to the arable crops, whilst a number potentially nest and forage within the surrounding hedgerows and the woodland to the north of the site.
- 6.32. Bat monitors were placed on site, mature trees and a ruin to the western boundary of the site were considered to be suitable for bat roosts. Agricultural fields are not considered to be favoured by bats due to the lack of linear vegetated features. The most common bat recorded was the Common Pipistrelle and Soprano Pipistrelle with a number of recordings of the Leisler's Bat and one recording of a Mytois. It is stated that existing hedgerows connecting the site to Glounamuck woods provide suitable foraging habitat for bats and will not be impacted upon by the development. Apart from

the proposed removal of 2 no. trees to facilitate the entrance to the site, it is stated that no other suitable bat roosting sites are located within the development boundary. A preconstruction survey of these trees will be carried out in order to determine the presence of bat roosts, this can be adequately dealt with by way of condition.

- 6.33. Other taxa recorded during walkovers included four common butterflies.
- 6.34. Mammals observed included, badger, meles, brown rat, fox and rabbit. It is of note that no badger setts were observed within the substation development boundary but occurred in the proximity of the permitted solar farm.
- 6.35. It is stated within the report submitted that the 110kV substation will be constructed within arable crop habitat which has been evaluated as being of low ecological value. The removal of this habitat will lead to a negative but not significant impact on this habitat.
- 6.36. It is also acknowledged within the ecological report submitted that there will be some displacement of hedgerow habitat with a total loss of 22 metres of hedgerow and 2 mature trees, whilst no planting is proposed to replace this lost habitat it is of note that 288 linear metres of new hedgerow is proposed within the Solar farm development which will have positive impact upon the area in general, in addition I also note that 6,465 linear metres of existing hedgerow will be bolstered with additional planting.
- 6.37. The reuse of excavated soils within the adjacent solar farm lands for the construction of planted berms as stated within the report submitted will have a further positive effect on biodiversity in the surrounding area of the development site.
- 6.38. As mentioned within the information submitted, mitigation measures to prevent the deposition of sediment into drainage channels and connected streams will be implemented, such mitigation measures will be discussed in detail within the Appropriate Assessment Section of this report and will not be repeated here. However it is important to note at this juncture that based on the information submitted, I am satisfied that impacts in relation to aquatic species will not arise as a result of the development.
- 6.39. The applicant does not consider that the operation of the facility would give rise to impacts in relation to biodiversity. However, I note that concerns have been raised within the submission received in relation to light pollution. It is contended that lights

that are left on at night and lights that have no restrictions on light direction would impact nocturnal animals in a negative manner. I have reviewed the concerns raised in relation to this matter, as outlined above, and I am satisfied that such matters can be adequately addressed by way of condition, should the Board be of a mind to grant permission I recommend that a condition is imposed which seeks lighting details such as the type, direction and colour to be agreed prior to commencement of development.

- 6.40. I note that no Annex I bird species were observed during site walkovers, yellowhammers were observed, and it was contended within the information submitted that these species were attracted to crops planted in the fields. It is proposed to replace this food source with a mix of cereal and wildflower plants within the site. No significant impacts to bird species are therefore expected.
- 6.41. Overall, having regard to the ecological value of the habitats present and that the development will occur largely within managed cultivated lands, and the absence of any protected or rare species within the development site, I am satisfied that the proposed development subject to conditions relating to the control of light during night time hours and the carrying out of pre-construction surveys within the site will not have any significant effect on the overall ecology and general biodiversity of the area.

Residential Amenity

- 6.42. I note from the planning and environmental report submitted that the nearest house to the proposed development will be located c. 253 metres away. It is stated by the applicant that all works will occur during normal working hours and potential noise impacts will be controlled in accordance with all relevant codes of practice. Operational noise is stated to give rise to emissions of 58dBA, such emitters will be insulated and as such it is expected that noise levels will be inaudible from a few metres away.
- 6.43. Lighting will be used infrequently and will be designed in a manner to prevent light scatter. I am satisfied that subject to conditions the proposed development will not give rise to light pollution to residential dwellings in the vicinity.
- 6.44. Impacts arising from dust, waste or traffic are not expected to be significant and I am satisfied that such impacts can be adequately controlled by way of condition.

6.45. Overall, I am satisfied based on the information submitted and the distance of the proposed development site from neighbouring properties that impacts to residential amenity will not arise.

Traffic

6.46. I draw the Boards attention to the submission received from Transport Infrastructure Ireland in which reference is made to the requirement for an assessment of any potential impacts which may arise from transporting loads which fall outside the limits allowed upon the road network. TII also require a full assessment of all structures to be undertaken on all national roads and that the relevant authorities along the haul routes should confirm their acceptance.

6.47. In this regard I note that a site access and drainage report has been prepared by Civil and Structural Engineering Advisors Ltd on behalf of the applicant which examines the suitability of the proposed access and surrounding road and drainage network. With regard to access, it is stated that the site will be accessed via an existing agricultural entrance from the L-7634. This entrance was the subject of permitted improvement works under planning reference 18/6769. It is proposed to further widen and splay this entrance to c. 19 metres to accommodate access requirements for the 110kV substation and to provide adequate sight visibility.

6.48. The current road width at the point of entry to the site is c. 3.4 metres. Sight lines can be adequately achieved in both directions and as such I am satisfied that the proposed entrance is acceptable in this regard.

6.49. I note from the report submitted that the surrounding road network has been assessed in relation to pavement condition and vertical and horizontal geometry. I further note that the proposed substation development will only require one abnormal load to be delivered to the site which will comprise of the substation transformer.

6.50. It is stated that the pavement condition of the surrounding road network is in good condition with the exception of one road which is to be upgraded by Cork County Council. The applicant has also examined, with the use of an autotrack analysis, whether the surrounding road network can accommodate the abnormal load and construction traffic required. The analysis results demonstrate that the existing road network can adequately accommodate the required type and level of traffic without additional works being required.

- 6.51. Analysis of the delivery routes from the N25 were also examined and are suitable to cater for both the abnormal load and the related construction traffic. I note that delivery measures are to be agreed with Cork County Council prior to the commencement of construction.
- 6.52. Based on the information submitted, I am satisfied that the proposed development can be adequately accessed, and that the surrounding road network has adequate capacity to cater for both standard construction vehicles and any abnormal loads that are necessary to the proposed development. Nonetheless, I consider it prudent, should the Board be minded to grant permission, to impose a condition to ensure that such details in relation to haul routes are agreed prior to the commencement of the development with the relevant road authorities.

Other Issues

- 6.53. Flooding
- 6.54. The development site is not located within an area identified as being vulnerable to flooding and there are no watercourses traversing the site. As mentioned within the information submitted all watercourses will be surveyed prior to commencement of development and I am satisfied that adequate provisions have been made to ensure the protection of such watercourses. Impacts to watercourses are examined elsewhere within this report and will not be repeated within this section. I note that concerns are raised within the submissions in relation to the potential for construction traffic to create flooding. All road surfaces and conditions have been examined within the surrounding road network and were found to have the capacity to cater for the proposed type and quality of construction traffic required. Thus, having regard to the location of the site which has not been identified as being vulnerable to flooding and having regard to the nature and duration of the proposed construction works, I am satisfied that flooding will not arise as a result of such vehicles travelling on the local road network or operating within the site.
- 6.55. I note that a number of submissions have raised concerns in relation to surface water runoff from the previously permitted solar array. As mentioned above concerns pertaining to a previously permitted development are not within the Board's remit and cannot be adjudicated on within this application. I am satisfied that the proposed

development will not give rise to flooding based on the type and scale of development and the location of same within elevated lands unaffected by flood.

6.56. Noise

6.57. I note from the Planning and Environmental report submitted, that a low-level humming noise of c. 33-58 dBA is expected to be generated by the electricity transformer and inverters. However, I also note that these elements of the proposed development will be housed within noise insulating prefabricated structures which will result in imperceptible residual noise emissions.

6.58. The nearest dwelling to the proposed development is stated to be in excess of 250 metres, given that the proposed transformer and inverters are to be housed and having regard to the location of the development within a rural area surrounded by soft landscape I am satisfied that significant noise emission will not arise in relation to the proposed development.

6.59. Archaeology

6.60. An Archaeological, Architectural and Cultural Heritage Impact Assessment has been prepared by HW Planning on behalf of the applicant. The assessment has been carried out in relation to both the proposed development site and the wider area. A study area of 1km was identified and examined for the purpose of the assessment. No Recorded Monuments, Architectural Conservation Areas, Protected Structures, Cultural Heritage Sites or Historic Monuments present within or adjacent to the proposed development site. It is stated within Section 4.1 of the report submitted that there is moderate potential for unknown buried archaeological remains within the site due to the presence of prehistoric and medieval monuments within the surrounding area.

6.61. Having regard to the report submitted and that there are no archaeological features of significance within the proposed development site, I am satisfied that significant archaeological impacts are unlikely to arise in this instance. Nonetheless I recommend that standard archaeological conditions are attached to the decision should the Board be of a mind to grant permission.

6.62. Lighting

- 6.63. I note from the submission received that concerns have been raised in relation to the potential for lighting to effect mammals and species including bats within the site and surrounds. It is stated within the submissions received that undirected light could result in light overspill to areas and such overspill can affect the nocturnal habits of animals and other species within the surrounding area.
- 6.64. The applicant proposes a number of external lights within the electrical compound and states that these are necessary for safety reasons. This lighting will be operated manually from the substation building and will be used infrequently. The applicant states that the lights will be designed in a manner which will restrict light scatter. CCTV will utilise infra-red which will not create and need for lighting.
- 6.65. Having reviewed the application and supporting information, there is a lack of detailed information in relation to the particular type and direction of lighting proposed. However, I am satisfied that such details can be adequately agreed by way of condition. Should the Board be of a mind to grant permission I recommend that a condition is imposed which seeks the applicant to submit details of the type, duration, and direction of lighting proposed.

Glint and Glare

- 6.66. Although a glint and glare assessment is included in the application documents, it is not directly relevant to the subject application as the proposed solar panels, which will be developed on part of the subject site, are proposed under a separate application.

7.0 Appropriate Assessment

- 7.1. The NIS dated December 2020 has been prepared by Ecology Ireland Ltd on behalf of the applicant. The NIS describes the proposed development, its receiving environment and relevant European Sites in the zone of influence of the development. It was informed by desk top study of maps and ecological and water quality data from a range of sources and site walkovers in May and June 2018 and September 2020.
- 7.2. No botanical species protected under the Flora (Protection) Order 1999, as amended, listed in Annex II or IV of the EU Habitats Directive (92/43/EEC) or listed in the Irish Red Data Books were recorded. All flora and fauna species recorded during the walkover are considered common for similar habitats in the general area. No qualifying

interests of any Natura 2000 sites within 15km of the proposed development were recorded during site visits. No invasive species listed on the Invasive Species Ireland's 'most wanted list' were found within the study area. No species listed on the third schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations were found within the development site.

- 7.3. The report concluded that, taking into account the project design and the implementation of mitigation measures identified in the NIS, the proposed development will not result in adverse effects on the integrity of any Natura 2000 site.
- 7.4. Having reviewed the NIS and the supporting documentation, I am generally satisfied that it provides adequate information in respect of the baseline conditions, identifies the potential impacts, uses best scientific information and knowledge and provides details of mitigation measures. I am satisfied, that the information provided is generally sufficient to allow for appropriate assessment of the development.
- 7.5. I have reviewed the Appropriate Assessment Screening carried out by the applicant's consultants in which the following three Natura 2000 sites are identified as being sites potentially being within the zone of influence of the proposed development:
 - 7.6. Blackwater River (Cork/Waterford) SAC
 - 7.7. Cork Harbour SPA
 - 7.8. Great Channel Island SAC
- 7.9. Having regard to the information and submissions available, nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors, I am satisfied that all relevant Natura 2000 sites within the zone of influence of the development have been adequately considered for the purpose of screening. I do not consider there to be any additional sites required to be assessed at screening stage.
- 7.10. **Screening Determination**
- 7.11. The NIS submitted screens out the River Blackwater on the grounds that it is removed from the development and will not be affected by disturbance. I consider this to be reasonable, the Blackwater is located north of the development site and does not have any hydrological connections to the proposed development site.

7.12. Cork Harbour SPA and Great Channel SAC have a potential hydrological link to the development site via drainage channels within the site which potentially drain into the Glounamuck Stream which is within the Lee, Cork Harbour and Youghal Bay Catchment (Owenacurra subcatchment). Waters from this stream have a pathway to the Owenacurra River which is designated as part of the Great Island SAC and Cork Harbour SPA. There is therefore a potential for the proposed development to significantly affect the integrity of the Great Island SAC and Cork Harbour SPA having regard to the sites' conservation objectives by way of water pollution and increased sedimentation from surface water runoff. I would therefore conclude that a Stage 2 Appropriate Assessment is required for these Natura 2000 sites.

7.13. It is important to note that mitigation measures have not been considered in the Appropriate Assessment Screening.

Stage II Appropriate Assessment

7.14. 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).

7.15. The following Appropriate Assessment of the implications of the proposed works alone and in combination with other relevant plans and projects will be carried out in relation to the following European sites in view of their conservation objectives:

- Cork Harbour SPA
- Great Channel Island SAC

7.16. I note, as mentioned above, that the NIS submitted on behalf of the applicant concluded that the proposal will not beyond reasonable scientific doubt, adversely affect the integrity of any European Site either directly or indirectly.

7.17. The following is a summary of the objective assessment of the implications of the project on the qualifying interests/special conservation interests of the European sites. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed. Regard is had to the following guidance documents:

- 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. DoEHLG (2009).
- 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 (2002)
- Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC] EC (2018).

Great Island Channel SAC

7.18. It is important to note at this juncture that the Great Island Channel SAC stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest. The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows.

7.19. The site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour, namely North Channel, Harper's Island and Belvelly-Marino Point. The site is an integral part of Cork Harbour which is a wetland of international importance for the birds it supports.

7.20. While the main land use within the site is aquaculture (oyster farming), the greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments.

Cork Harbour SPA

7.21. The Cork Harbour SPA is a large, sheltered bay system, with several river estuaries. Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important

wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.

Table 1.0 – Natura 2000 sites within zone of influence

| European Site Name & Code | Distance | Qualifying Interest | Source-pathway-receptor |
|---------------------------|----------------|---|--|
| Cork Harbour SPA | c.4.9km | <p>Little Grebe (<i>Tachybaptus ruficollis</i>) [A004]</p> <p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</p> <p>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p> <p>Grey Heron (<i>Ardea cinerea</i>) [A028]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Wigeon (<i>Anas penelope</i>) [A050]</p> <p>Teal (<i>Anas crecca</i>) [A052]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Lapwing (<i>Vanellus vanellus</i>) [A142]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> | Potential pathway via the Glounamuck Stream. |

| | | | |
|---------------------------------|----------------|---|--|
| | | Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Common Tern (<i>Sterna hirundo</i>) [A193] Wetland and Waterbirds [A999] | |
| Great Channel Island SAC | c.3.9km | Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] | Potential pathway via the Glounamuck Stream. |

Potential for direct and indirect effects

- 7.22. The general conservation objectives for the qualifying interests of these sites seek to maintain or restore the favourable conservation condition for habitats and/or species at these sites, as summarised in table 2 below. The maintenance of habitats and species within the Natura 2000 sites at favourable condition will contribute to the overall maintenance of favourable conservation status of those species at a national level.
- 7.23. The NIS submitted acknowledges that the proposed works will give rise to a potential for direct and indirect significant impacts arising from impacts to water quality and/or increases in levels of sedimentation. Having reviewed the location of the qualifying interests relative to the proposed development I consider in relation to both the Great Island Channel SAC, and the Cork Harbour SPA, that all of the qualifying interests of these Natura 2000 sites, which are outlined in table 1.0 above, are sensitive to changes in water quality and increases in sedimentation. With regard to the Cork Harbour SPA the birds listed as qualifying interests for which this site is designated feed and roost within the harbour area. Changes to water quality or increases in

siltation due to construction works could have an impact on the availability of suitable prey for these bird species. Changes to sedimentation levels may also affect low nesting sites.

- 7.24. In relation to the qualifying interests of the Great Island Channel SAC impacts arising from increased sedimentation can impact the community type in a natural condition of Mudflats and sandflats leading to the potential for direct impacts to this qualifying interest and an indirect impact upon the bird species that rely upon this habitat.
- 7.25. In addition, increases to sedimentation arising from the proposed development may also have the potential to impact the natural processes necessary to the maintenance of Atlantic salt meadows, which could also have an indirect effect upon the bird species that utilise this habitat.

In combination Effects

- 7.26. In combination effects are examined within section 4.1.2 of the NIS submitted. The proposed works were considered in relation to existing and permitted development in the area. Particular reference is made to the recently permitted Solar Farm development which the proposed development will serve. No significant effects are expected to arise from these permitted Solar Farm developments and as such no significant cumulative effects are expected when considered in combination with the proposed development.
- 7.27. The surrounding area comprises unzoned rural agricultural lands, I am therefore satisfied that no cumulative effects will arise in relation to the zoning objectives within the Cork County Development Plan or existing and permitted development in the area.
- 7.28. Having regard to the foregoing, I am satisfied that the proposed development will not give rise to significant in-combination effects.

7.29. Mitigation Measures

- 7.30. The following mitigation measures will be integrated as part of the proposed development regarding environmental protection of Glounamuck Stream in relation to potential surface water run off during the construction phase. A buffer of 5m will be maintained between field drains and a buffer of 10 metres will be provided from flowing watercourses. Berms which are proposed as part of the wider development, will be

topped with soil and planted and works will only be carried out in dry weather on the landside of the berm away from watercourses.

- 7.31. It is stated within Section 4.2.1 of the NIS submitted that prior to works being carried out the existing drainage network will be surveyed and all drainage channels and springs will be identified. No berms will be placed on top of or in the flow path of such springs.
- 7.32. Excavated soils will be stored away from watercourses and placed on geotextile mats and silt fencing will be utilised where required throughout the site in order to prevent sediment from entering watercourses. No removal of habitats or movement of construction machinery will occur outside of the development site.
- 7.33. All wastes will be removed from site in accordance with a waste management plan which will be agreed with the planning authority prior to construction.
- 7.34. There will be designated construction compound, car parking area and site offices as outlined within the information submitted. The location of these facilities will be finally determined within the final construction management plan to be submitted to the local authority. Fuel bunds will be roofed to exclude rainwater and will be located away from watercourses. Daily checks of the site will be carried out and recorded accordingly.
- 7.35. Section 2 of the substation drainage report states that surface water from the electrical transformer will pass through a class 1 fuel retention oil separator which will ensure that only non-contaminated water discharges to the surface water drainage network.
- 7.36. This report further states that no foul waste will be discharged at the site. A holding tank will be provided and emptied periodically.
- 7.37. It is further stated within the NIS submitted that an emergency response plan will be complied prior to the commencement of development. Any source of contamination will be removed from the site by a suitably qualified contractor and the site will close until the matter has been resolved.
- 7.38. All mitigation measures will be examined in relation to the potential for likely significant effects on the Cork Harbour SPA and the Great Island Channel SAC within the following integrity test.
- 7.39. **Integrity Test**

- 7.40. I have considered the NIS along with the information submitted with the application and have had regard to the mitigation measures outlined. Potential for impacts to arise in relation to water quality arising from the leakage of oils and diesels or other such contaminants from construction vehicles and surface water arising from the electrical transformer has been dealt with within the mitigation measures outlined in both the NIS, Drainage Report and the Construction Methodology Report. The use of interceptors and bunded areas, staff toolbox talks and emergency response plans are standard in nature and are known to be effective. I am therefore satisfied that the mitigation measures outlined in relation to hydrocarbon contamination of soils and waters are acceptable.
- 7.41. Adequate buffers of 5-10 metres will be provided between works and all land drains/watercourses, and silt traps will be utilised throughout the development site to ensure that sediment contamination to watercourses does not arise. These measures will be bolstered through the creation of planted berms within the wide area associated with the Solar Farm development, which will provide a physical barrier between the site and watercourses in the area.
- 7.42. A preconstruction survey will ensure that all water courses are adequately identified and protected accordingly.
- 7.43. Thus, having regard to the information submitted in relation to sediment transportation and water pollution, I am satisfied that the mitigation measures outlined are acceptable and will adequately prevent impacts arising in this regard.

Overall Conclusion

- 7.44. I have considered the location of the qualifying interests of both the Cork Harbour SPA (site code 004030) and the Great Island Channel SAC (site code: 001058) in relation to the proposed works and the existing context of the site within agricultural lands and the activities associated with such development and I consider, on the basis of the information provided with the application, including the Natura Impact Statement, and in light of the assessment carried out, I am satisfied that the proposed development individually, or in combination with other plans or projects would not adversely effect the European site Nos. 004030 and 001058 in view of these sites Conservation Objectives. This conclusion is based on a complete assessment of all aspects of the

proposed project and there is no reasonable doubt as to the absence of adverse effects.

Table 2 AA summary matrix – Cork Harbour SPA

| <p>Cork Harbour SPA, site code:004030</p> <p>Summary of likely significant effects</p> <ul style="list-style-type: none"> • Water Quality deterioration • Sedimentation <p>Conservation Objectives: To maintain or restore the favourable conservation status of habitats and species of community interest</p> | | | | | |
|--|---|---|---|--|---|
| | | Summary of Appropriate Assessment | | | |
| Qualifying Interest feature | Conservation Objectives Targets and attributes | Potential adverse effects | Mitigation measures | In-combination effects | Can adverse effects on integrity be excluded? |
| <p>Little Grebe (Tachybaptus ruficollis) [A004]</p> <p>Great Crested Grebe (Podiceps cristatus) [A005]</p> <p>Cormorant (Phalacrocorax carbo) [A017]</p> <p>Grey Heron (Ardea cinerea) [A028]</p> <p>Shelduck (Tadorna tadorna) [A048]</p> <p>Wigeon (Anas penelope) [A050]</p> <p>Teal (Anas crecca) [A052]</p> <p>Pintail (Anas acuta) [A054]</p> <p>Shoveler (Anas clypeata) [A056]</p> | <p><u>Conservation Objective</u> - To maintain the favourable conservation condition of all QIs listed.</p> <p><u>Relevant Targets & Attributes</u></p> <p><u>Population trend</u> - Long term population trend stable or increasing.</p> <p><u>Distribution</u> – No significant decrease in the range, timing or intensity of use of areas by all QIs, other than that occurring from natural patterns of variation</p> | <p>Increase in siltation and pollution due to construction works could have an impact on water quality and could effect all QI listed and reduce availability of aquatic prey and roosting sites.</p> | <p>Use of designated bunded areas for machinery, works to be carried out in dry weather, the use of silt fences and the storage of excavated material in an area lined with a geotextile membrane will protect water quality and control sediment movement.</p> | <p>Additional development in area.</p> | <p>Yes</p> |

| | | | | | |
|---|--|--|--|--|--|
| Red-breasted Merganser (Mergus serrator) [A069] | | | | | |
| Oystercatcher (Haematopus ostralegus) [A130] | | | | | |
| Golden Plover (Pluvialis apricaria) [A140] | | | | | |
| Grey Plover (Pluvialis squatarola) [A141] | | | | | |
| Lapwing (Vanellus vanellus) [A142] | | | | | |
| Dunlin (Calidris alpina) [A149] | | | | | |
| Black-tailed Godwit (Limosa limosa) [A156] | | | | | |
| Bar-tailed Godwit (Limosa lapponica) [A157] | | | | | |
| Curlew (Numenius arquata) [A160] | | | | | |
| Redshank (Tringa totanus) [A162] | | | | | |
| Black-headed Gull (Chroicocephalus ridibundus) [A179] | | | | | |
| Common Gull (Larus canus) [A182] | | | | | |
| Lesser Black-backed Gull (Larus fuscus) [A183] | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| Common Tern (Sterna hirundo) [A193] | | | | | |
| Wetland and Waterbirds [A999] | | | | | |
| Overall conclusion: Integrity test Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of this European site in view of the sites Conservation Objectives. | | | | | |

Table 3 AA summary matrix – Great Island Channel SAC

| | | | | | |
|---|---|--|---|--------------------------------|--|
| Great Island Channel SAC, site code: 001058 Summary of likely significant effects <ul style="list-style-type: none"> • Water Quality deterioration • Sedimentation Conservation Objectives: To maintain or restore the favourable conservation status of habitats and species of community interest | | | | | |
| | | Summary of Appropriate Assessment | | | |
| Qualifying Interest feature | Conservation Objectives Attributes & Targets | Potential adverse effects | Mitigation measures | In-combination effects | Can adverse effects on integrity be excluded? |
| Mudflats and sandflats not covered by seawater at low tide [1140] | <u>Conservation Objective</u> - To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Great Island Channel SAC <u>Relevant Targets & Attributes</u> <u>Habitat area</u> -The permanent habitat area is stable or | Increase in siltation and pollution due to construction works could have an impact on water quality and sediment levels which can impact the community type and natural condition of | Use of designated bunded areas for machinery, works to be carried out in dry weather, the use of silt fences and the storage of excavated material in an area lined with a geotextile membrane will protect | Additional development in area | Yes |

| | | | | | |
|--|--|------------------------|--|--|--|
| Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330] | <p>increasing, subject to natural processes.</p> <p><u>Community distribution</u> - Conserve the following community type in a natural condition: Mixed sediment to sandy mud with polychaetes and oligochaetes community complex</p> <p><u>Habitat area</u> - Area stable or increasing, subject to natural processes, including erosion and succession.</p> <p><u>Habitat distribution</u> - No decline or change in habitat distribution, subject to natural processes.</p> | Mudflats and sandflats | water quality and control sediment movement. | | |
| <p>Overall conclusion: Integrity test</p> <p>Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of this European site.</p> | | | | | |

8.0 Recommendation

- 8.1. Having considered the contents of the application, the provision of the Development Plan, the observations received, and in accordance with the foregoing assessment, I recommend that the proposed development be approved for the reasons and considerations set out below.

9.0 Reasons and Considerations

In coming to its decision, the Board had regard to the following:

European legislation, including of particular relevance:

- Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.
- EU Renewable Energy Directive 2009/28/EC which aims to promote the use of renewable energy

National and regional planning and related policy, including:

- National Planning Framework
- Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure, July 2012,

Regional and local level policy, including the:

- Regional Spatial Economic Strategy for the Southern Region

The local planning policy including:

- **Cork County Development Plan 2014-2020**
- other relevant guidance documents
- the nature, scale and design of the proposed development as set out in the planning application and the pattern of development in the vicinity, including the permitted Solar Farm developments within the vicinity of the proposed development site,
- the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European Sites,
- the submissions made to An Bord Pleanála in connection with the planning application, and

- the report and recommendation of the Inspector, including the examination, analysis and evaluation undertaken in relation to appropriate assessment and environmental impact assessment screening.

Proper Planning and Sustainable Development

It is considered that the proposed development would accord with European, national, regional and local planning and that it is acceptable in respect of its likely effects on the environment and its likely consequences for the proper planning and sustainable development of the area.

Appropriate Assessment:

The Board agreed with and adopted the screening assessment and conclusion carried out in the inspector's report that the Cork Harbour SPA site code:004030 and Great Island Channel SAC, site code: 001058 are the European sites for which there is a likelihood of significant effects.

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposal for the Cork Harbour SPA, site code :004030 and Great Island Channel SAC, site code: 001058, in view of the Sites Conservation Objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment.

In completing the assessment, the Board considered, in particular, the

- i. Likely direct and indirect impacts arising from the proposal both individually or in combination with other plans or projects, specifically upon the Cork Harbour SPA site code: 004030 and Great Island Channel SAC, site code: 001058,
- ii. Mitigation measures which are included as part of the current proposal, and
- iii. Conservation Objective for these 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 integrity of 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 points of detail to be agreed with the planning authority, these matters shall be the subject of written agreement and shall be implemented in accordance with the agreed particulars. In default of agreement, the matter(s) in dispute shall be referred to An Bord Pleanála for determination.

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. All mitigation and environmental commitments identified in the Natura Impact Statement shall be implemented in full as part of the proposed development.

Reason: In the interest of development control, public information and clarity.

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

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

5. Trees shall be examined prior to felling to determine the presence of bat roosts. Any works shall be in accordance with the TII Guidelines for the Treatment of Bats during the construction of National Road Schemes.

Reason: In the interest of wildlife protection.

6. Prior to the commencement of development, the applicant shall submit an Invasive Management Species Action Plan for the written approval of the planning authority which shall include full details of the eradication of the Cherry Laurels from the site before construction on the site.

Reason: In the interest of nature conservation and mitigating ecological damage associated with the development.

7. a) No additional 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. Their location within the compound shall be agreed with the Planning Authority prior to commencement of work on site.

(c) All lighting shall be operated in such a manner as to prevent light overspill to areas outside of the compound.

(d) Prior to the commencement of development the applicant shall submit a detailed lighting plan for the written agreement of the planning authority. The plan shall include the type, duration, colour of light and direction of all external lighting to be installed within the external areas of the development site.

Reason: In the interests of clarity, and of visual and residential amenity and protection of local biodiversity.

8. 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 residential amenities of property in the vicinity.

9. The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:
- a) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess and monitor all preparatory works and all site development works.
 - b) investigate areas of archaeological potential by means of geophysical survey and, depending on the findings, carry out test excavations if deemed necessary following consultation with the National Monuments Services Section of the Department of Culture, Heritage and the Gaeltacht.
 - c) notify the planning authority in writing at least four weeks prior to the commencement of any site operation relating to the proposed development, and
 - d) submit a report to the planning authority, containing the results of the archaeological investigations and assessment.

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

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

10. 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:
- a) location of the site and materials compound including area identified for the storage of construction refuse

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

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

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

- 11.A) During the operational phase of the proposed development, the noise level arising from the development, as measured at the nearest noise sensitive location shall not exceed:

(i) An LAeqT value of 55 dB(A) during the period 0800 to 2200 hours from Monday to Saturday inclusive. [The T value shall be one hour.]

(ii) An LAeqT value of 45 dB(A) at any other time. [The T value shall be 15 minutes]. The noise at such time shall not contain a tonal component.

At no time shall the noise generated on site result in an increase in noise level of more than 10 dB(A) above background levels at the boundary of the site.

b) All sound measurement shall be carried out in accordance with ISO Recommendation R 1996 "Assessment of Noise with respect of Community Response" as amended by ISO Recommendations R 1996 1, 2 or 3 "Description and Measurement of Environmental Noise" as applicable.

Reason: To protect the amenities of property in the vicinity of the site.

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

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

13. The developer shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

Reason: In the interest of the proper planning and sustainable development of the area.

14. The site and development works shall be carried out in such a manner as to ensure that the adjoining roads are kept clear of debris, soil and other material and if the need arises for cleaning works to be carried out on the adjoining public road, the said cleaning works shall be carried out at the developers expense.

Reason: In the interest of orderly development

15. The delivery of abnormal loads for the construction of the development shall be managed in accordance with a Traffic 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 the road network to be used by construction traffic, including over-sized loads, and detailed arrangements for the protection of bridges, culverts or other structures to be traversed, as may be required. The plan should also contain details of how the developer intends to engage with and notify the local community in advance of the delivery of oversized loads.

Reason: In the interests of public safety and residential amenity

16. Prior to the commencement of development, the applicant shall submit for the written agreement of the planning authority, details of an obstacle warning light scheme which can be visible to night vision equipment.

Reason: in the interest of aviation safety.

17. Water supply, wastewater treatment and surface water attenuation and disposal shall comply with the requirements of the planning authority for such works and services.

Reason: In the interest of public health

Sarah Lynch Senior Planning
Inspector

20th May 2021