An Bord Pleanála

Inspector's Report

ABP-310029-21

Development	110kV electrical substation, underground cable, and all associated site works and drainage.
Location	Townland of Milltown, near Cortown, Kells, Co. Meath
Planning Authority	Meath County Council
Applicant(s)	Harmony Solar Meath Ltd.
Type of Application	Application under section 182A of the Planning & Development Act, 2000 (as amended)
Prescribed Bodies	1. Transport Infrastructure Ireland 2. Department of the Environment, Climate and Communications (Geological Survey Ireland (GSI)) 3. Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media
Observer(s)	None
Date of Site Inspection	17th January 2022

Inspector	Anthony Kelly

Contents

1.0 Introduction

1.1. An application under the provisions of section 182A of the Planning and Development Act, 2000 (as amended), was received by An Bord Pleanála from Harmony Solar Meath Ltd. for the development of a 110kV substation and associated infrastructure. The proposed substation would serve a solar farm which was permitted under an application made to Meath Co. Co. (21/396) and which is currently subject of both first and third party appeals before the Board (ABP-311460-21).

1.2. Following pre-application consultation (ABP-308018-20), the Board determined that the proposed development falls within the scope of section 182A of the Planning and Development Act, 2000 (as amended) and that the application should be made directly to the Board. The purpose of the proposed development is to facilitate the connection of the proposed solar farm to the national grid.

2.0 Site Location and Description

2.1. The overall 110kV substation and solar farm site comprises two separate parcels, the North Parcel and the South Parcel. They are located in a rural area of Co. Meath, south of Kells and north west of Navan. The two parcels have a combined area of approx. 121.5 hectares. They are approx. 1.8km apart at their closest points.

2.2. The proposed 110kV substation is located within the North Parcel which has an area of approx. 41.2 hectares. It is approx. 1.6km south of the zoned urban area of Kells at the closest point. It comprises a number of agricultural fields with tree and hedge lined field boundaries. The Arvagh–Navan 110kV ESB line traverses the site. The Toberultan Stream runs along the north western boundary. There is an existing agricultural gate at the proposed vehicular access point.

2.3. The site subject of this SID application has an area of 4.74 hectares.

3.0 Proposed Development

3.1. Approval is sought for the following development:

- A 110kV electrical substation with associated electrical plant, electrical equipment, control buildings, lightning masts, and security fencing.
- An underground cable linking the substation to 2 no. end masts, approx. 16 metres in height, at the existing overhead 110kV transmission line.
- Access tracks, new site entrance onto the L6835 road, and all associated site works and drainage.

The proposed substation and associated works are part of a larger renewable solar energy project known as Milltown Solar Farm.

3.2. The proposed development constitutes provision of a 110kV 'Loop In – Loop Out' (LILO) substation. The substation area is approx. 2.18 hectares comprising, inter alia, a transmission service operator (TSO) compound (EirGrid compound) with electrical equipment, transformer sub-compound, bus bars sub-compound, substation control building etc., a required TSO expansion area (0.74 hectares), and operator's compound. A 5 metres wide access road, approx. 1.13km in length, an underground cable corridor approx. 515 metres in length, and 2 no. 16 metres high mast structures linking the substation to the adjacent overhead Arvagh – Navan 110kV transmission line, are also proposed.

3.3. As part of a separate planning application to Meath Co. Co., permission was granted for a solar farm as described in section 4.2 of this report. This grant of permission is currently under consideration by the Board under ABP-311460-21 following first and third party appeals.

3.4. It is anticipated the two land parcels will be connected via an approx. 2.9km long underground internal network cable, following the public road, which will be sought as part of a separate planning process. All three separate elements (110kV substation, solar farm, and network cable) comprise the overall project.

3.5. LILO connection involves drawing the 110kV energy from the transmission line, adding the additional energy from the proposed solar farm, and sending the combined energy back out to the transmission line. The existing overhead conductor line between the proposed 16 metres high 'end' masts would be removed. Connection agreements to the national grid require the developer to permanently hand over the substation to the TSO (EirGrid). Part of the substation will be retained by the operator which acts as the

collection point for the energy generated from the North Parcel and that brought to the substation from the South Parcel. As the substation will form part of the national grid transmission network, the substation and associated development components is for permanent provision. A final electrical design is determined by EirGrid. The separate elements of the substation components are set out in detail in sections 2.3.2.1 – 2.3.2.5 of the applicant's Planning and Environmental Report.

3.6. The floor area of the proposed 110kV substation development is 655sqm, comprising a 435sqm substation control building and a 220sqm operator's control building. The substation control building is single-storey in scale with a height of approx. 8.7 metres. It is externally finished in plaster. The operator's control building is also single-storey in scale with a height of approx. 6.9 metres. It is externally finished in plaster with a blue/black slate roof. Seven approx. 18 metres high lightning masts are anticipated to be required.

3.7. The application is accompanied by supporting documentation including:

- a 'Planning and Environmental Report' prepared by Fehily Timoney and Company (Fehily Timoney) dated April 2021. This is submitted in two volumes: Volume 1 (Main Report), and Volume 2 (Appendices),
- a 'Natura Impact Statement' (NIS) document prepared by Greenleaf Ecology dated 23rd February 2021, and,
- a 'Construction and Environmental Management Plan' (CEMP) prepared by Fehily Timoney dated April 2021.

4.0 **Planning History**

4.1. A pre-application consultation under ABP-308018-20 took place with the Board on 14th October 2020. Subsequently the Board was of the opinion that the proposed development falls within the scope of section 182A of the Planning & Development Act, 2000 (as amended) and would be strategic infrastructure.

4.2. P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-21 – In 2021 Meath Co. Co. granted permission to Harmony Solar Meath Ltd. for a solar farm on two separate land parcels comprising up to 734,000sqm of solar photovoltaic panels on ground mounted

steel frames, inverter/transformer stations, underground power and communication cables and ducts, security fencing, internal access tracks, drainage infrastructure, one new site entrance to each site, a temporary vehicle passing area on land adjoining the public road to assist traffic movements during construction, CCTV cameras, all associated site services and works, and a control building and associated compound within the South Parcel. Permission was sought for a period of 10 years and a 35 year operational life.

This grant of permission was subject of both first and third party appeals to the Board and is currently under consideration under ABP-311460-21.

5.0 **Consultations**

5.1. Details of the application were circulated to the following prescribed bodies:

- Meath Co. Co.
- Minister for Housing, Local Government and Heritage
- Department of Environment, Climate and Communications
- Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media
- Minister for Rural and Community Development
- Minister for Transport
- Irish Water
- Inland Fisheries Ireland
- Transport Infrastructure Ireland
- Environmental Protection Agency
- The Heritage Council
- An Taisce
- An Chomhairle Ealaíon
- Fáilte Ireland

- Irish Aviation Authority
- Health & Safety Authority

6.0 **Submissions**

6.1. **Prescribed Bodies**

6.1.1. Transport Infrastructure Ireland (TII)

A submission was received dated 17th May 2021. It notes that the delivery of a 150MVA transformer, weighing approx. 72 tonnes, will constitute the largest item for delivery. It is also noted by TII that the transportation of such a load requires the use of specialised equipment using a designated route by a specialised contractor, but no further detail is included. Any operator who wants to transport a load whose weight falls outside allowable limits must obtain a permit for its movement from each local authority through which it travels. The developer should consult with relevant PPP companies, motorway maintenance and renewal contractors, and road authorities to ascertain any operational requirements. Additionally, any damage caused to the pavement of national roads shall be rectified in accordance with TII Pavement Standards. TII recommends resolution of this matter in advance of any decision on the subject application.

6.1.2. Department of the Environment, Climate and Communications (Geological Survey Ireland (GSI))

A submission was received dated 21st May 2021 which states GSI has no specific comment or observations since the response to Meath Co. Co. A copy of that response, dated 25th March 2021, is attached. It is the same as that forwarded to Meath Co. Co. relating to P.A. Reg. Ref. 21/396 and it states, inter alia, that there are no County Geological Sites in the vicinity of the proposed solar farm.

6.1.3. Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (Heritage/Nature Conservation)

A submission was received dated 16th June 2021 outlining nature conservation-related observations/recommendations.

The substation site is mainly of little ecological significance but contains a pond apparently fed along a ditch line with water originating from a groundwater source. No evidence of amphibians was noted but the Ecological Impact Assessment (EcIA) considers that the pond has the potential to be a spawning (breeding) location for frogs. The department considers it also has potential to be a breeding place for smooth newts. It is proposed to replace the pond by constructing a 'biodiversity pond' a short distance away within the solar farm and along the ditch feeding the present pond. This pond, and a second existing pond to be retained, should provide adequate substitute breeding sites for displaced frogs or newts.

EcIA mitigation proposes no works to ponds during the breeding season for common frog (January to March inclusive). However tadpoles and newts can be expected to be present in frog breeding ponds until late summer. The possibility that the pond on the substation site may be a breeding site will require to be fully investigated. If it is a confirmed frog/newt breeding site either the destruction of the pond will have to be scheduled for when these species are least likely to be present, or if this is not feasible, a methodology shall be proposed for the removal of any amphibians present in the pond, under licence from the National Parks & Wildlife Service, and relocation to the new pond.

In light of the above the department recommends a condition in this regard.

6.2. Public Observations

6.2.1. None received.

6.3. Meath Co. Co.

A submission dated 21st June 2021 was received from Meath Co. Co. The content of the submission can be summarised as follows:

- Local planning policy is set out which relates to the Meath County Development Plan 2013-2019.
- The submission concurs with the findings and conclusions of the applicant's Landscape and Visual Impact Assessment. Having regard to the design and

layout it is not considered that the proposed development will result in a significant harmful impact to the visual amenity of the surrounding area.

- The Board is invited, in the event of a grant of permission, to apply relevant community gain conditions, where deemed appropriate.
- The Board's attention is brought to the adjacent proposed solar farm development.
- In respect of the principle of the development, the planning authority considers that the nature of the wider development is one that is supported in national, regional, and local planning policy, with the caveat that such development must still be appropriate from an environmental, technical, and visual perspective etc.
- The Board shall consider the impact of the substation to neighbouring properties in terms of any overbearing, overlooking, overshadowing, loss of outlook/natural light/privacy, or depreciation in the value of properties.
- The subject site is not within an area at risk of flooding. Relevant surface water drainage conditions should be attached to any grant of permission.
- There are no protected structures or architectural conservation areas that would be affected.
- Subject to adherence to the recommended conditions in the Environment Department report, the proposed development is acceptable in terms of predicted noise and vibration impacts.
- In the event of a grant of permission, a condition should be attached whereby mitigation measures presented in the Ecological Impact Assessment and Aquatic Ecological Impact Assessment be implemented in full.
- The Board should satisfy itself as to whether or not an environmental impact assessment report is warranted.
- As per the provisions of the Meath County Development Contribution Scheme 2016-2021, no development contributions are applicable.
- It is the Council's considered view that the proposed development is acceptable in principle. 13 no. conditions are recommended in the event the Board grant the application. These include implementation of identified mitigation

measures, external finishes, landscaping, construction practices, pre- and post-construction survey of the L6835 and cash deposit of €100,000 to secure the satisfactory completion of any repairs, lighting design, and surface water drainage.

- Appendix 1 of the planning authority's report contains the internal reports.
    - The Transportation Department report makes a number of comments and recommends conditions.
    - The Transportation Department (Public Lighting) outlines a number of points relating to lighting design.
    - The Architectural Conservation Officer recommends conditions.
    - The Environment Department makes a number of comments and recommends conditions.
    - The Assistant Chief Fire Officer states a Fire Safety Certificate is required.
    - The Water Services Department states the proposed development broadly meets the planning authority's requirements with respect to surface water. Recommended conditions are set out.

7.0 Policy Context

7.1. Climate Action Plan 2021 – Securing Our Future

7.1.1. The Climate Action Plan 2021 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. Among the most important measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030.

7.2. Project Ireland 2040 National Planning Framework (NPF)

7.2.1. The NPF is a high level strategic plan to shape the future growth and development of the country to 2040. It will be focused on delivering 10 National Strategic Outcomes (NSOs). NSO 8 is 'Transition to a Low Carbon and Climate Resilient Society' and it is expanded upon on page 147 of the NPF. There is a 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'.

7.2.2. The 'Energy Production' part of section 5.4 (Planning and Investment to Support Rural Job Creation) notes that rural areas will continue to significantly contribute to the energy needs of the country. 'In meeting the challenge of transitioning to a low-carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a rural setting, while also continuing to protect the integrity of the environment and respecting the needs of people who live in rural areas'.

7.2.3. National Policy Objective (NPO) 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'.

7.3. Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy (RSES) 2019-2031

7.3.1. There are 16 no. Regional Strategic Outcomes (RSOs). RSO 8 is to build climate resilience. RSO 9 is to support the transition to low carbon and clean energy.

7.3.2. The RSES notes in section 4.8 that 'Energy production, including renewable energy in the form of wind, solar and biomass have to date largely been provided in rural areas and the location of future renewable energy production is likely to be met in rural

areas'. Regional Policy Objectives (RPOs) 4.79 and 4.84 generally support renewable energy developments in rural areas.

7.3.3. Section 7.9 (Climate Change) is relevant to the proposed development. 'The Strategy supports an increase in the amount of new renewable energy sources in the Region. This includes the use of … solar photovoltaics and solar thermal, both on buildings and at a larger scale on appropriate sites in accordance with National policy and the Regional Policy Objectives outlined in this Strategy'.

7.3.4. Renewable energy is also referenced in section 10.3. RPOs 10.20 and 10.22 are relevant.

7.4. Meath County Development Plan 2021-2027

7.4.1. I note the submission from Meath Co. Co. refers to the Meath County Development Plan 2013-2019. However, subsequent to that submission the Meath County Development Plan 2021-2027 came into effect on 3rd November 2021 and is now the relevant plan setting out the local policy context.

7.4.2. It is the policy of the Council, as set out in ED POL 19 'To support and facilitate sustainable agriculture … renewable energy and other rural enterprises at suitable locations in the County'.

7.4.3. Chapter 6 (Infrastructure) notes that 'International, EU and National policies all promote a much more energy-efficient society relying on sustainable renewable energy sources. This will ensure that we secure our international competitiveness by increased use of and demand for indigenous resources and increased security of supply. Consequently, policies and objectives promoting energy efficiencies and the development of indigenous resources will be pursued during the lifetime of this Plan. This Development Plan has an overarching role in progressing a sustainable energy future for the County by recognising the central role of land use planning in promoting a low carbon society and mitigating the impacts of climate change'. Solar energy is specifically referenced in section 6.15.3.1. Policies in chapter 6 that generally support renewable energy include INF POL 34 and 35 and similar objectives include INF OBJ 39 and 41.

7.4.4. Section 6.15.4.1 (Electricity and Gas Networks) states 'The two main energy sources currently serving the County are electricity and gas. The County's location within the

Greater Dublin Area together with the potential for significant economic and supporting residential development within the Plan period demonstrates the importance of ensuring that the existing networks can be upgraded and can provide enhanced capacity. This capacity is essential to facilitate the future development of the County in line with the Core and Settlement Strategies. The RSES highlights the importance of reducing energy consumption from fossil fuel sources and promotes the use of more sustainable sources such as wind, wave solar and biomass. The use of smart technology systems and the recognition that buildings can act as both generators and consumers of energy and the promotion of electric vehicles will all place greater pressure on the national electricity grid. Thus, the strengthening of the national grid is important for a number of reasons including improving security of supply for the domestic, residential and enterprise market as well as attracting high-end enterprise which often require significant energy capacity and reliability'. Policy INF POL 46 is relevant.

7.4.5. Chapter 10 (Climate Change Strategy) notes that it is essential to move away from using conventional coal and gas-fired power to electricity generated from renewable sources.

7.4.6. It is the policy of the Council, as set out in DM POL 27, 'To encourage renewable development proposals which contribute positively to reducing energy consumption and carbon footprint'. DM OBJ 76 outlines the criteria to be considered in individual energy development proposals e.g. environment, traffic, landscape etc.

7.5. Natural Heritage Designations

7.5.1. The closest Natura 2000 site is River Boyne and River Blackwater SAC (Site Code 002299) approx. 3.3km to the north. The closest heritage area is Girley Bog NHA (Site Code 001580) approx. 3.7km to the south west.

7.6. EIA Screening

7.6.1. Schedule 5 of the Planning and Development Regulations 2001 (as amended), sets out Annex I and Annex II projects which mandatorily require an Environmental Impact Assessment Report (EIAR). Development of a class included in Part 1 requires

mandatory EIA. Development of a class included in Part 2 is subject to thresholds and may require EIA.

7.6.2. The only classes that I consider to be of potential relevance to the proposed development are as follows:

- Schedule 5, Part 1, Class 20: Construction of overhead electrical power lines with a voltage of 220 kilovolts or more and a length of more than 15 kilometres.
- Schedule 5, Part 2, Class 3(b): Industrial installations for carrying gas, steam and hot water with a potential heat output of 300 megawatts or more, or transmission of electrical energy by overhead cables not included in Part 1 of this Schedule, where the voltage would be 200 kilovolts or more.

7.6.3. I note that an electrical substation is not a class of development contained in Parts 1 or 2 of Schedule 5, and I further note that the proposed development does not entail the construction of any overhead power lines, regardless of voltage or length. The proposed grid connection between the proposed substation and the overhead power lines on the Arvagh – Navan line, which traverse the proposed solar farm site approx. 400 metres north of the proposed substation, would be by way of underground 110kV cable, and therefore would not come within either of the classes listed above.

7.6.4. As no element of the proposed development falls into a class of development contained in Schedule 5, Parts 1 or 2, I am satisfied that the proposed development does not require either mandatory EIA, or screening for EIA.

8.0 **Planning Assessment**

The purpose of the proposed 110kV substation, underground cables and associated development is to connect a proposed solar farm development (P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-21) to the existing Arvagh – Navan 110kV electricity line. The proposed development would thereby facilitate the export of electricity from the solar farm, if constructed, to the national grid.

The applicant's submitted Planning and Environmental Report states the report is broadly a replication of the report submitted to Meath Co. Co. with the solar farm

planning application, with changes relating principally to alterations of the mapping figures provided to reflect the different site boundary.

Having examined the application details and all other documentation on file, including the submissions received, and inspected the site, and having regard to relevant local/regional/national policies and guidance, I consider that the main issues are as follows:

- Principle of Development
- Landscape and Visual Impact
- Impact on Adjacent Residential Amenity
- Traffic and Transport
- Flood Risk
- Biodiversity
- Archaeology

An Appropriate Assessment is also required.

8.1. Principle of Development

8.1.1. This application for approval was submitted to the Board when the Meath County Development Plan 2013-2019 was in place. However, the Meath County Development Plan 2021-2027 came into effect on 3rd November 2021 and is now the relevant plan setting out the local policy context. There is a robust, high-level, policy framework in place that supports increasing the amount and share of renewable energy and reducing reliance on fossil fuels and emission of greenhouse gases.

8.1.2. The proposed substation site is located within a large agricultural holding and is within/adjacent to the North Parcel of the proposed Milltown solar farm which is currently under consideration by the Board. It is set back from the public road and is relatively remote from third party properties. The proposed development is a critical part of the overall renewable energy project, to deliver energy generated from solar photovoltaic panels to the national grid.

8.1.3. In terms of the rural location, the NPF acknowledges that 'the location of future national renewable energy generation will, for the most part, need to be accommodated on

large tracts of land that are located in a rural setting', while protecting the integrity of the environment and respecting the needs of residents of rural areas. The RSES similarly notes that 'the location of future renewable energy production is likely to be met in rural areas'. The relevant provisions of the Meath County Development Plan 2021-2027 also indicate that renewable energy development in rural areas is supported in suitable locations, subject to particular considerations. I note substations associated with solar farm developments have previously been granted permission by the Board in rural areas e.g. ABP-310141-21 outside Oranmore, Co. Galway, and ABP-309491-21 outside Rhode, Co. Offaly.

8.1.4. Having regard to the foregoing, I consider that the principle of a 110kV electricity substation and associated development is acceptable at this location subject to the detailed considerations in this assessment. It would facilitate the proposed Milltown solar farm, it is close to the existing 110kV transmission line, and it would contribute towards additional renewable energy on the national grid, in line with the relevant policy framework.

8.2. Landscape and Visual Impact

8.2.1. A 'Landscape and Visual Impact Assessment' (LVIA) was submitted as appendix 12.1 of the applicant's Planning and Environmental Report. It was prepared by Macroworks and is dated December 2020. A landscape impact assessment relates to assessing effects of development on the landscape as a resource in its own right, whereas a visual impact assessment relates to assessing effects of a development on specific views and on the general visual amenity experienced by people. The LVIA assessed the proposed development as a 'whole project' approach.

8.2.2. In the Meath County Development Plan 2013-2019 the site was situated within Landscape Character Area (LCA) 16 – 'West Navan Lowlands'. It was described as having a moderate landscape value, a medium landscape sensitivity, and local landscape importance. In the Meath County Development Plan 2021-2027, the site is still designated LCA 16 – West Navan Lowlands. It is described as a moderate value landscape character area with a moderate sensitivity. A Landscape Capacity map indicates various types of development and its likely acceptance in each LCA. This is

similar to the corresponding map in the 2013-2019 Plan. The relevant 'Views and Prospects' map is also similar in terms of those within the general vicinity of the site.

8.2.3. Computer generated Zone of Theoretical Visibility (ZTV) maps were prepared. The main value of the bare ground ZTV map is in determining which parts of the study area the proposed development would definitely not be visible from. (These maps relate to the overall development, and not just that subject of the SID application). Digital surface model and mitigation (existing/proposed landscaping) based ZTV maps were also prepared which indicates that the potential for visibility is substantially reduced.

8.2.4. For landscape impact, the landscape sensitivity to the overall proposed development is deemed to be medium-low. The magnitude of landscape impact (in which the sense of industrialisation and intensity of electrical infrastructure development from the proposed SID development is acknowledged) is considered to be medium within and immediately around the site, and likely to reduce rapidly thereafter. The LVIA considers that the overall landscape impact significance would be no greater than moderate-slight, with most of the 5km radius study area likely to experience slight and imperceptible landscape impacts.

8.2.5. 13 no. viewshed reference points (VRPs) were selected for studying the visual impact of the proposed development and were selected based on specific criteria. Some of these VRPs relate to the overall proposed development, some are relevant to the North Parcel alone, and some are relevant to the South Parcel alone. Photomontages have been submitted (an 'LVIA Photomontages' booklet), prepared by Macroworks and dated February 2020. A tabular analysis and assessment of visual receptor sensitivity at each VRP is set out in table 1-7 of the LVIA. Each VRP is individually described and considered. Of the 13 no. VRPs, I consider that nine of them are relevant to the proposed SID development (VRPs 2, 3, 4, 5, 6, 7, 8, 12, and 13). All of these nine VRPs have an 'imperceptible' pre-mitigation visual impact and residual visual impact. Overall in terms of landscape and visual impact, the LVIA considers the proposed solar farm and 110kV substation development would not give rise to any significant residual impacts and this is testimony to site selection within a well contained rural landscape.

8.2.6. I consider that the LVIA and photomontage booklet submitted with the application is an accurate reflection of the impact that the proposed development would have, and

it is sufficiently detailed. Though based on the previous County Development Plan (2013-2019), there would be no material difference had it been prepared in accordance with the current 2021-2027 plan.

8.2.7. Map 4 (Landscape Capacity) of the Landscape Character Assessment in the current Plan includes 'overhead cables, substations and masts' development which LCA 16 has a low-medium capacity for. Having regard to the submitted LVIA I consider that the proposed development would be acceptable at this location.

8.2.8. In conclusion, I consider that the proposed SID development would not have an undue adverse landscape or visual impact.

8.3. Impact on Adjacent Residential Amenity

8.3.1. The proposed SID involves construction of a 110kV substation and associated works. The SID works are largely contained within the landowner's agricultural holding with the exception of the proposed new site entrance onto the local road. There is an existing agricultural gate at the location of the proposed new site entrance. This element of the application is also included in the solar farm application.

Visual Impact

8.3.2. Landscape and visual impact were addressed under section 8.2 of this planning assessment. However, the LVIA submitted considered impact at a more elevated level at public locations. The impact of the proposed SID on the amenity of residential property was not specifically considered.

8.3.3. The main elements of the proposed SID i.e. substation, associated compounds, and the end masts, are set back into the landowner's holding and away from the public road. The nearest buildings to the development are owned by the landowner. The proposed compound is approx. 350 metres from the landowner's farmyard. The closest third party property from the main SID area i.e. excluding the proposed access, is approx. 450 metres away.

8.3.4. Having regard to the relatively limited scale of the proposed development, the extent of existing vegetation, the set back from the public road, and the distances to third party residential properties, I do not consider the SID works would have any undue

visual impact on residential property in the area from an overlooking, shadowing or overbearing impact perspective.

Noise

8.3.5. Noise is addressed in section 10 of the applicant's Planning and Environmental Report. According to the report, the nearest house to the North Parcel is approx. 250 metres to the north west. From the SID site this house is approx. 600 metres distant. The nearest house to the south (which is under the landowner's ownership) is approx. 360 metres away from the overall development site boundary and the nearest house to the east is approx. 490 metres from the overall development site boundary. These distances refer to the main body of the North Parcel i.e. the solar farm and substation area, and do not include the proposed site entrance and access road. There are closer sensitive receptors which would be affected by the construction of the site entrance and access road which have not been addressed i.e. residential properties along the L6835.

8.3.6. Noise would arise at construction stage and appropriate applicable limits are set out in table 10-1 of the applicant's Report. Construction noise was assessed by comparing predicted construction activities against best practice construction noise criteria. The applicant considers that the parameters used make the noise modelling exercise a conservative one.

8.3.7. The substation construction works is addressed in table 10-5 of the applicant's report. Receptor H24 is identified as the closest noise receptor, approx. 410 metres to the south of the substation site. This is under the landowner's control. The only drawings that this receptor is specifically identified on are figures 9 and 10 of the Glint and Glare Assessment submitted as appendix 13.1 to the applicant's Planning and Environmental Report. Five separate construction phases are set out: site clearance and preparation, preparation and pouring of foundations, preparation of hardstanding areas, erection of blockwork/installation of concrete slabs, and general construction including installation of electrical and mechanical plant. The maximum cumulative predicted noise level at receptor H24 is cited as 48.2 dB $L_{Aeq,1hr}$ during the site clearance and preparation phase. This is significantly below the 65 dB limit considered to be appropriate.

8.3.8. During operation, there would be noise from the transformers in the substation. The site is assumed to be an 'area of low background noise' as it does not meet the criteria for a 'quiet area', primarily because of the proximity to Kells and the M3. Notwithstanding that the proposed development does not require an IPPC or waste licence, Environmental Protection Agency noise emission limit standards for those activities are set out i.e. 45 dB(A) for daytime, 40 dB(A) for evening, and 35 dB(A) for night-time. At H24 the anticipated total noise levels (inverters and transformers) are 36.3 dB L_{Aeq} during daytime and 32.3 dB L_{Aeq} during evening and night. It is expected that tonal noise will not be audible at noise sensitive locations. Notwithstanding, it is considered reasonable to include a standard noise condition in any approval granted.

8.3.9. Having regard to the foregoing, and notwithstanding the absence of consideration of the construction of the proposed site entrance and access road, which in itself is a relatively straightforward construction project and relatively short-term in duration, I consider that the construction and operation of the proposed SID project would not have any undue adverse impact on the amenity of property in the vicinity in terms of noise.

8.4. Traffic and Transport

8.4.1. Section 8 (Traffic and Transport) of the applicant's Planning and Environmental Report describes the existing road network in the vicinity and the potential traffic and transportation impacts on same. The proposed substation site is accessed from the L6835, utilising an existing agricultural field gate. The access track from the local road to the substation in the North Parcel would be 5 metres wide. Just inside the entrance a stretch of the road would be widened to provide an internal passing bay. Separate haul routes are proposed for each parcel, set out in figure 8-12 of the Planning and Environmental Report. The existing masonry arch bridge approx. 350 metres west of the North Parcel entrance was found to have sufficient capacity to withstand HGV loads proposed (appendix 8.2 of the applicant's report refers to this). An adjacent passing bay on the L6835 is proposed under the solar farm planning application to assist in traffic management such that it would provide additional road width to allow oncoming vehicles to pass any traffic waiting to cross the bridge.

8.4.2. Stages 1 (site establishment) and 2 (substation, masts and grid connection construction) of the overall four stage construction phase relate to construction activities for the proposed substation i.e. it would be constructed in the initial stages of the overall solar farm development. Installation of the substation and associated items are anticipated to take approximately five months. There is some overlap with works required for the North Parcel solar farm such as the site entrance and access road. Construction of the North Parcel solar farm would not commence until the end of the third month, at which point the substation construction traffic would be post-peak. Installation phase HGV trips are anticipated as 3,250 no. This figure does not include the solar farm construction HGV trips, estimated as 2,541 no. An average of 30 no. HGV trips a day are anticipated with a peak of 42 no. An average workforce of nine is anticipated, 12 no. during the peak. The applicant considers that the estimated level of traffic generation would not exceed the local road capacity or give rise to local traffic obstruction. A site-specific Traffic Management Plan would be prepared prior to construction. By adopting identified mitigation measures e.g. haul routes, on-site turning, adequate signage etc., the construction traffic impact on the local road network is anticipated by the applicant to be temporary to short-term in duration, and slight in significance.

8.4.3. The operational substation will be monitored remotely. Maintenance is anticipated to be required monthly with estimated traffic movements averaging five to six visits per month.

8.4.4. In its submission to the Board, TII refers to delivery of a 150MVA transformer, weighing approx. 72 tonnes, as set out in section 8.4.1 of the applicant's Planning and Environmental Report. Though no specific haul route for the transformer is set out, the North Parcel haul route is described in section 8.2.1. It states that all HGVs exit the M3 at Kells onto the R941, then the R164, and then the L6835 to the site. It is shown on figure 8.12 of the report. I consider that the specific detail of the required haul route or permits, consultations, operational requirements etc. is a matter for the developer and is outside the specific scope of this application for approval.

8.4.5. The proposed substation and associated solar farm development is in a rural location and the road network is typical of such areas. I do not consider there is any deficiency in the network that would render it unsuitable to carry the additional load required during the construction phase. Traffic movements associated with the construction

phase would be short-term in duration and would not, in my view, lead to any undue congestion or hazard. I consider a standard condition in relation to protection of the road/road condition survey could be attached to any approval that may issue.

8.4.6. In conclusion, I do not consider that traffic and transport issues associated with the proposed SID would result in a significant adverse impact on the area.

8.5. Flood Risk

8.5.1. A Flood Risk Assessment (FRA) prepared by JBA Consulting dated December 2020 was submitted as appendix 6.1 of the applicant's Planning and Environmental Report.

8.5.2. The Toberultan stream flows along the north west boundary of the North Parcel. The North Parcel is generally well drained according to the FRA, though a low-lying area within the centre showed evidence, on inspection in July 2020, of surface water ponding.

8.5.3. The FRA considers that fluvial flooding is the key source of flood risk in the North Parcel. A section of the North Parcel is at risk of inundation from the 1% and 0.1% annual exceedance probability (AEP) flood events according to the planning authority's broad scale and indicative Strategic Flood Risk Assessment (Flood Zones A and B). Site specific modelling results show that, during the 0.1% AEP event, bank overtopping on the site side of the Toberultan stream occurs at one point which would result in inundation. There is no inundation during the 1% AEP event or the 1% AEP plus climate change event. The likely Flood Zone B flood extents are overlain on the North Parcel layout in figure 5-2 of appendix 6.1. This shows potential flooding would only affect the solar panels and would not affect the SID site.

8.5.4. Having regard to the foregoing I do not consider that the proposed SID is vulnerable to flooding.

8.6. Biodiversity

8.6.1. Both an Ecological Impact Assessment (EcIA) prepared by Greenleaf Ecology dated 11th February 2021 and an Aquatic Ecological Impact Assessment (AEcIA) prepared by Lauren Williams dated February 2021 were submitted as part of the application for

approval. They are submitted as appendix 7.1 of the applicant's Planning and Environmental Report.

8.6.2. While impact on Natura 2000 sites is considered in section 9 of this inspector's report, the EcIA considers that there is no connectivity between the proposed SID and the two NHAs within a 10km radius (Jamestown Bog and Girley Bog).

8.6.3. The SID site primarily comprises improved agricultural grassland. The site also encroaches into areas identified as wet grassland and other artificial ponds. A summary of ecological valuation of the site is outlined in table 3-5 of the EcIA. An existing pond would be infilled and replaced in the solar farm area as a result of the construction of the substation. No significant adverse effects on biodiversity are expected during the operational phase. Approximately 112 metres of new hedgerow planting would be provided along the northern substation boundary. Other minor mitigation measures relating to amphibians and badgers are set out. The SID development is expected to have a positive impact over the short to medium term on habitats, flora, and fauna, according to table 5-2.

8.6.4. The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media has made a submission on the SID application, specifically in relation to the relocation of the pond and the potential impact on frogs and newts. A robust condition is recommended in relation to this. I consider the recommended condition to be reasonable and should be attached to any approval.

8.6.5. The AEcIA notes the substation site is 380 metres from the Toberultan stream with only diffuse, overland drainage to the stream. The overall ecological significance of the watercourse is considered to be low. Substation construction works may have a temporary and not significant impact on the aquatic receptor. Construction phase mitigation measures set out in table 5-7 of the AEcIA include cable trenching works and drainage. It is apparent from the AEcIA that the proposed SID would not have a significant impact on aquatic ecology.

8.6.6. Therefore, having regard to both the ECIA and the AEcIA, and the recommended departmental condition, I do not consider the proposed SID would have a significant impact on the biodiversity of the area.

8.7. Archaeology

8.7.1. An Archaeological Assessment, prepared by John Cronin & Associates dated December 2020 was included as appendix 11.1 of the applicant's Planning and Environmental Report. There are 15 no. recorded archaeological sites within the overall project study area (extending 1km from the outer boundaries of the site), but none on the proposed development footprint. The closest archaeological site to the SID/substation site is monument no. ME017-035, a castle – motte, approx. 210 metres south west which dates to the late medieval period. No features of an archaeological nature were identified from light detection and ranging (Lidar) imagery produced. Linear features noted likely represent modern agricultural activity. The assessment notes that the most significant ground works would be associated with the excavations of trenches to accommodate the connections to the electrical grid which may affect any unrecorded sub-surface archaeological remains. No direct operational phase impacts to known archaeological sites are considered to arise.

8.7.2. Proposed mitigation measures are contained in section 6 of the Archaeological Assessment. These include commentary about what should occur in the event of archaeological remains being uncovered during construction. Certain recommendations are included in the assessment including geophysical surveys at certain locations, for example within 300 metres of the motte and within the field it is proposed to construct the two end masts, and pre-development archaeological testing.

8.7.3. I consider that the proposed development would not have any undue adverse impact on archaeology, subject to the inclusion of a standard monitoring condition.

9.0 Appropriate Assessment (AA)

Appropriate Assessment (AA) Screening

Compliance with Article 6(3) of the Habitats Directive

9.1. The requirements of article 6(3) of the Habitats Directive, as related to screening the need for appropriate assessment of a project under part XAB, section 177U of the

Planning and Development Act, 2000 (as amended) are considered fully in this section.

Background on the Application

9.2. The applicant submitted a 'Screening for Appropriate Assessment' report, prepared by Greenleaf Ecology dated 23rd February 2021, as part of the SID application. It is contained as appendix A of the submitted 'Natura Impact Statement' (NIS).

9.3. The Stage 1 screening report comprises information in support of screening for AA to be undertaken by the competent authority. The Stage 1 screening report was prepared in line with current best practice guidance, provides a description of the proposed development, and identifies European sites within a possible zone of influence. Associated reports were also submitted with the planning application such as a Construction and Environmental Management Plan (CEMP), an Ecological Impact Assessment (EcIA), and an Aquatic Ecological Impact Assessment (AEcIA).

9.4. The screening report concluded that 'In the absence of mitigation measures to control surface water pollution during construction of the proposed 110kV Substation, Milltown, Co. Meath, the potential for likely significant effects to the QI of the River Boyne and River Blackwater SAC and the SCI of the River Boyne and River Blackwater SPA cannot be excluded'. A similar conclusion was reached in relation to the proposed solar farm development.

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

Screening for Appropriate Assessment – Test of Likely Significant Effects

9.6. The project is not directly connected with or necessary to the management of a European site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).

9.7. The proposed development is examined in relation to any possible interaction with European sites designated Special Areas of Conservation (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European site(s).

Brief Description of the Development

9.8. The applicant provides a description of the overall project on pages 9-11 of the screening report. There are three separate elements: the solar farm, the 110kV substation, and an underground internal network cable linking both parcels of the solar farm. The 110kV substation is subject of the current application. The solar farm is also subject of a current planning application (P.A. Reg. Ref. 21/396) which is under consideration by the Board (ABP-311460-21) following first and third party appeals of the decision by Meath Co. Co. to grant permission. Approval for the network cable element will be sought later as part of a separate planning process. In summary, the substation which is the subject of this application for approval comprises:

- A 110kV electrical substation with associated electrical plant, electrical equipment, control buildings, lightning masts, and security fencing,
- An underground cable linking the substation to 2 no. end masts, approx. 16 metres in height, at the existing overhead 110kV transmission line, and,
- Access tracks, new site entrance onto the L6835 road, and all associated site works and drainage.

9.9. The development site is described in pages 11-12. It comprises improved agricultural grassland and also encroaches into areas identified as wet grassland and other artificial ponds as per the EcIA. The fields are bounded by hedgerows and treelines. The Toberultan Stream flows along the north west of the North Parcel.

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

- Habitat loss/fragmentation
- Construction-related – uncontrolled surface water/silt/construction related pollution
- Habitat disturbance/species disturbance (construction and/or operational).

Submissions and Observations

9.11. No relevant submission or observation received.

European Sites

9.12. The development site is not located in or immediately adjacent to a European site. The closest European site is River Boyne and River Blackwater SAC approx. 3.1km north of the North Parcel (approx. 3.3km north of the SID site).

9.13. European sites within the Zone of Influence (ZoI) must be evaluated on a case by case basis. Figure 3-1 of the AA screening report illustrates the position of the North Parcel in the context of European sites in a 15km radius. There are four such sites: River Boyne and River Blackwater SAC (approx. 3.3km north of the SID site as the crow flies (a separate section of this SAC along a different watercourse is approx. 5.5km to the south west of the SID site)), Girley (Drewstown) Bog SAC (approx. 4.5km south west of the SID site), Killyconny Bog (Cloghbally) SAC (approx. 11.4km north west of the SID site), and River Boyne and River Blackwater SPA (approx. 3.4km north east of the SID site).

9.14. The possibility of potential impact to each site was considered in the screening report. Potential impacts to Girley (Drewstown) Bog SAC and Killyconny Bog (Cloghbally) SAC were discounted because of the absence of any connectivity between the two European sites and any of the three elements of overall proposed development. There is potential hydrological connectivity between the proposed substation development and the River Boyne and River Blackwater SAC and SPA via the Toberultan Stream i.e. the stream is a tributary of the Blackwater River. I concur with considering only these two sites as being within the ZoI.

Table 9-1: Summary Table of European Sites Within the Zone of Influence of the Proposed Development

European Site (code)	**List of Qualifying Interest (QI) / Special Conservation Interest (SCI)**	**Distance from Proposed Development (km)**	**Connections (source, pathway, receptor)**
River Boyne and River Blackwater SAC (002299)	Alkaline fens [7230]	Approx. 6.8km downstream from the North Parcel	Hydrologically via the Toberultan Stream which runs

	Alluvial forests with Alnus glutinosa and Fraxinus excelsior [91E0] River lamprey [1099] Salmon [1106] Otter [1355]		along the north west boundary of the North Parcel
River Boyne and River Blackwater SPA (004232)	Kingfisher [A229]	As above	As above

Identification of Likely Effects

9.15. The conservation objectives of the Natura 2000 sites are as follows:

- River Boyne and River Blackwater SAC – Conservation objectives are set out in the 'Conservation Objectives Series River Boyne and River Blackwater SAC 002299' documents published by the National Parks & Wildlife Service (NPWS). They are to maintain the favourable conservation condition of alkaline fens and otter, and to restore the favourable conservation condition of alluvial forests with …, river lamprey, and salmon.
- River Boyne and River Blackwater SPA – The conservation objective is set out in the 'Conservation objectives for River Boyne and River Blackwater SPA [004232]' document published by the NPWS. It is 'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'.

9.16. Likely direct, indirect, or secondary impacts of the proposed substation development on European sites are considered in section 4.2 of the applicant's AA screening report.

- No direct impacts would occur through land-take or fragmentation of habitats given the distance of the proposed site from the SAC and SPA.

- Survey findings indicate that the Toberultan Stream is not suitable to provide a steady foraging resource for otter and no evidence of otter was recorded.
- Drainage ditches at the substation site support standing water/very low flow which would ultimately drain towards the Toberultan stream. They do not support any fisheries value. The Toberultan flows into the SAC and SPA downstream. The AEcIA indicates the Toberultan stream is not a significant spawning and/or nursery habitat for either salmon or river lamprey and would play a limited role, if any, in supporting favourable conservation status of these QI species in the SAC.
- There are no watercourses within the proposed substation site and the drainage ditches bounding the site are not suitable to support kingfisher. No riparian birds were observed during the site survey. The site is set back from the SPA by approx. 3.4km at its closest point and there would be no disturbance/displacement or ex-situ impacts.
- No instream works are proposed during construction, operation, or decommissioning. However, using the precautionary principle and given the hydrological links, the potential for significant adverse effects on the QI and SCI species as a result of export of potentially damaging waterborne pollutants e.g. sediment, concrete and hydrocarbons during construction cannot be ruled out. No risk during the operational phase has been identified.

9.17. In the AA screening report a similar conclusion to the last bullet point, above, was reached in relation to the proposed solar farm. Table 3-3 of the screening report, in relation to the proposed internal cable network, stated that the network would be installed in the body of local roads and the proposed route would not cross any watercourses i.e. there would be no hydrological connectivity to a European site.

9.18. Section 4.2.1 of the AA screening report outlines cumulative impacts with other plans and projects in the area. The report concludes that there would be no negative in-combination effects.

9.19. I note that the applicant concluded, using the precautionary principle, that Stage 2 AA (submission of a NIS) was warranted because, in the absence of mitigation measures to control surface water pollution during construction, the potential for likely significant effects on the QI and SCI of the SAC and SPA cannot be excluded. Notwithstanding

the distance of the proposed site from the Toberultan stream, approx. 600 metres from the substation site and approx. 300 metres from the proposed masts, there appears to be minor hydrological linkage to the Toberultan stream. Therefore, I conclude that progression to Stage 2 AA is reasonable.

Mitigation Measures

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

Screening Determination

Significant effects cannot be excluded, and Appropriate Assessment required

9.21. The proposed development was considered in light of the requirements of section 177U of the Planning & Development Act, 2000 (as amended). Having carried out screening for Appropriate Assessment of the project, I conclude that the project individually (or in combination with other plans or projects) could have a significant effect on European sites River Boyne and River Blackwater SAC (site code 002299) and River Boyne and River Blackwater SPA (site code 004232) in view of the site's Conservation Objectives, and Appropriate Assessment (and submission of a NIS) is therefore required.

Appropriate Assessment (AA)

9.22. The requirements of article 6(3) as related to appropriate assessment of a project under Part XAB, section 177V of the Planning & Development Act, 2000 (as amended) are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with article 6(3) of the EU Habitats Directive
- The Natura Impact Statement (NIS) and associated documents
- Appropriate assessment of implications of the proposed development on the integrity of each European site.

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

9.23. The Habitats Directive deals with the conservation of natural habitats and of wild fauna and flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the

site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given.

9.24. The proposed development is not directly connected to or necessary for the management of any European site and therefore is subject to the provisions of article 6(3).

The Natura Impact Statement (NIS)

9.25. The application included a 'Natura Impact Statement' (NIS) prepared by Greenleaf Ecology dated 23rd February 2021, which examines and assesses potential adverse effects of the proposed development on both the River Boyne and River Blackwater SAC and SPA. It is a detailed document which provides information and appraises the potential that both the proposed solar farm and 110kV substation would have on the integrity of the relevant European sites in view of best scientific knowledge and the conservation objectives of the sites. The NIS contains, inter alia, a description of the proposed development, the legislative background, detailed commentary on the two relevant European sites, a description of the existing environment (including the results of the AEcIA), an overview of the potential indirect impacts that could occur, consideration of the cumulative/in-combination effects, mitigation, and analysis and conclusions.

9.26. The NIS concludes 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 Milltown Solar Farm and 110kV Substation, Co. Meath either alone or in combination with any other plans or projects. The integrity of the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA will not be adversely affected. No reasonable scientific doubt remains as to the absence of such adverse effects'.

9.27. No issue specific to AA was raised by the prescribed bodies.

9.28. Having reviewed the documents, I am satisfied that the information allows for a complete assessment of any adverse effects of the development on the conservation objectives of the River Boyne and River Blackwater SAC and SPA.

Appropriate Assessment of Implications of the Proposed Development

9.29. The following is a summary of the objective scientific assessment of the implications of the project on the QI and SCI features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed. Given the nature of the proposed development, and the nature, type, and QIs/SCIs of the European sites potentially affected, similar considerations apply to both.

9.30. The following sites are subject to appropriate assessment:

- River Boyne and River Blackwater SAC (Site Code 002299)
- River Boyne and River Blackwater SPA (Site Code 004232)

9.31. A description of the sites and their QI/SCI, including any relevant attributes and targets, are set out in the NIS, and summarised in sections 9.14 and 9.15 of this report as part of my assessment.

Aspects of the Proposed Development that could affect Conservation Objectives

9.32. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the sites arise from potential surface water pollution during the construction phase given the hydrological link between the SID site and the European sites. No aspects of the operational phase of development have been identified that could affect the conservation objectives.

9.33. Tables 9-2 and 9-3 summarise the AA and site integrity test. The conservation objectives for the two European sites have been examined and assessed with regard to the identified potential significant effect and all aspects of the project, alone and in-combination with other plans and projects. Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed, and clear, precise, and definitive conclusions reached in terms of adverse effects on the integrity of the European site.

Tables 9-2 and 9-3: Summary of Appropriate Assessment of implications of the proposed development on the integrity of European sites alone and in-combination with other plans and projects in view of the sites' conservation objectives

Table 9-2: River Boyne and River Blackwater SAC [002299]					
Summary of key issues that could give rise to adverse effects: • **Water quality impacts due to pollutants or soil/sediment run-off during construction phase** **Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002299.pdf**					
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?**
Alkaline fens [7230]	To maintain the favourable conservation condition of alkaline fens	No – Alkaline fen habitat distribution is located in the vicinity of Lough Shesk, Freekan Lough, and Newtown Lough. None of these loughs have any interaction with the Blackwater, and therefore could not be affected by the proposed development.	N/A	None	Yes – Habitat not within ZoI
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padoin, Alnion incanae, Salicion albae [91E0]	To restore the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padoin, Alnion incanae, Salicion albae)	No – The only location of alluvial forest set out in the conservation objectives document is approx. 30km west of the site as the crow flies.	N/A	None	Yes – Habitat not within ZoI

Lampetra fluviatilis (River Lamprey) [1099]	To restore the favourable conservation condition of river lamprey	Yes – Site is hydrologically linked to the SAC and river lamprey are sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase.	Best practice pollution prevention measures are set out in table 6-1 of the NIS and include detailed measures to mitigate impacts to water quality. For example, cabling in short sections, buffer zones for excavated spoil or refuelling, and three-stage treatment drainage system.	No likely significant in-combination effects. The proposed solar farm development (P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-21) proposes the same mitigation measures.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there is a high level of confidence in their likely success'.
Salmo salar (Salmon) [1106]	To restore the favourable conservation condition of salmon	Yes – Site is hydrologically linked to the SAC and salmon are sensitive to direct or indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase.	Best practice pollution prevention measures are set out in table 6-1 of the NIS and include detailed measures to mitigate impacts to water quality. For example, cabling in short sections, buffer zones for excavated spoil or refuelling, and three-stage treatment drainage system.	No likely significant in-combination effects. The proposed solar farm development (P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-21) proposes the same mitigation measures.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there is a high level of confidence in their likely success'.
Lutra lutra (Otter) [1355]	To maintain the favourable conservation condition of otter,	Yes – Site is hydrologically linked to the SAC and otters may be sensitive to direct or indirect effects from pollution of watercourses with	Best practice pollution prevention measures are set out in table 6-1 of the NIS and include detailed measures to mitigate impacts to water quality. For	No likely significant in-combination effects. The proposed solar farm development (P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent direct or indirect effects. The NIS

		chemicals, contaminants etc. during the construction phase. Also, possible impact on food sources.	example, cabling in short sections, buffer zones for excavated spoil or refuelling, and three-stage treatment drainage system	21) proposes the same mitigation measures.	considers that, with effective implementation of the mitigation measures, 'there is a high level of confidence in their likely success'.
Overall conclusion: Integrity test Following the implementation of mitigation, the construction and operation of the proposed development will not adversely affect the integrity of the River Boyne and River Blackwater SAC in light of the site's conservation objectives. No reasonable scientific doubt remains as to the absence of such effects.					

Table 9-3: River Boyne and River Blackwater SPA [004232]

Summary of key issues that could give rise to adverse effects:

- **Water quality impacts due to pollutants or soil/sediment run-off during construction phase**

Conservation objectives: see https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004232.pdf

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?
Kingfisher (Alcedo atthis) [A229]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA	Yes – Site is hydrologically linked to the SPA and kingfisher may be sensitive to indirect effects from pollution of watercourses with chemicals, contaminants etc. during the construction phase. Also, possible impact on food sources.	Best practice pollution prevention measures are set out in table 6-1 of the NIS and include detailed measures to mitigate impacts to water quality. For example, cabling in short sections, buffer zones for excavated spoil or refuelling, and three-stage treatment drainage system.	No likely significant in-combination effects. The proposed solar farm development (P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-21) proposes the same mitigation measures.	Yes – No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects. The NIS considers that, with effective implementation of the mitigation measures, 'there is a high level of confidence in their likely success'.

Overall conclusion: Integrity test
Following the implementation of mitigation, the construction and operation of the proposed development will not adversely affect the integrity of the River Boyne and River Blackwater SPA in light of the site's Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects.

Mitigation Measures

9.38. The proposed mitigation measures are set out in table 6-1 of the NIS. The table lists the objective of the mitigation measures and the details of the mitigation. Four objectives during the construction phase are set out: control of sediment loss, attenuation of runoff and solids settlement, avoid concrete loss to water, and avoid hydrocarbon loss. The 'Details of Mitigation' column sets out how these will be achieved.

9.39. Proposed mitigation measures for each objective include:

Control of sediment loss –

- All cable trenching works shall ensure that only short sections of the trench are open at any time.
- Freshly excavated spoil must be retained over 10 metres from a drain or watercourse and surrounded by silt fencing.
- Surplus soil forming berms shall be immediately reseeded and rolled.
- If dewatering is required from trenches after heavy rain contaminated water must be treated prior to discharge. There must be no direct pumping from works to watercourses.

Attenuation of runoff and solids settlement –

- The drainage system will be a three-stage treatment train: swale–stilling pond–diffuse outflow.

Avoid concrete loss to water –

- Best practice will be employed in bulk-liquid concrete management.
- Shuttering measures will be put in place to prevent against failure and oils.
- Disposal of raw or uncured waste concrete shall be controlled.
- No washing out or disposal of wet concrete to drains or watercourses.

Avoid hydrocarbon loss –

- Temporary parking and refuelling areas shall be at least 50 metres from a drain or watercourse.

- No storage of hydrocarbons or chemicals within 50 metres of surface water.

9.40. The proposed solar farm development (P.A. Reg. Ref. 21/396 / ABP Reg. Ref. ABP-311460-21) proposes the same mitigation measures. Table 3-1 of the NIS addresses the proposed internal cable network linking the South and North Parcels. In terms of connection to European sites the NIS states that 'It is proposed to install the underground cable network in the body of local roads. The proposed cable route does not cross any watercourses and does not support connectivity' to either the SAC or the SPA.

9.41. I consider that the proposed mitigation measures for water quality impacts generally comprise relatively standard, well proven good practice measures for construction works in the vicinity of watercourses. I consider that the proposed measures, as well as the construction methodology, is suitably detailed to remove any lack of clarity regarding potential adverse effects and that they are capable of being successfully implemented.

Operational Stage

9.42. Considering the nature of the proposed development and the distance from the abovementioned European sites, I do not consider that the proposed development is likely to adversely affect the integrity of the European sites in light of its conservation objectives. Site operations are non-intrusive in nature. I consider that no specific mitigation measures are required during the operational phase as no significant adverse effects have been identified.

Decommissioning Stage

9.43. The NIS states that, at decommissioning stage, the 14,900sqm substation site will be removed and the land rehabilitated by covering with topsoil and reseeding. This contradicts section 1.4 of the NIS which states that 'As the proposed 110kV Substation will form part of the national grid transmission network and may be used by Eirgrid to support additional transmission network infrastructure the development consent being sought … is for permanent provision of the substation and its associated development components'. This is also cited elsewhere e.g. section 2.3.2 of the applicant's Planning and Environmental Report and section 3.1.3 of the CEMP. Notwithstanding, the NIS considers that the level of soil disturbance would be significantly less during the decommissioning phase compared to construction.

In-Combination Effects

9.44. Existing and proposed plans and projects proximal to the site and those which may have an adverse cumulative or in-combination impact are set out by the applicant in table 5-2 of the NIS. I specifically note, in this regard, that the NIS has taken into consideration the separate elements of the overall proposed development i.e. the solar farm, the proposed 110kV substation development, and the internal network cable. Table 5-2 considers that there is no potential for adverse or significant in-combination effects on European sites.

Integrity Test

9.45. Following the appropriate assessment and the consideration of mitigation measures, I am able to ascertain with confidence that the project would not adversely affect the integrity of River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA, in view of the conservation objectives of these sites.

9.46. This conclusion has been based on a complete assessment of all implications of the project alone and in combination with plans and projects.

Appropriate Assessment Conclusion

9.47. The proposed SID has been considered in light of the assessment requirements of sections 177U and 177V of the Planning & Development Act, 2000 (as amended).

9.48. Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on River Boyne and River Blackwater SAC (site code 002299) and River Boyne and River Blackwater SPA (site code 004232). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

9.49. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of European site Nos. 002299 or 004232, or any other European site, in view of the sites Conservation Objectives.

9.50. 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.

9.51. This conclusion is based on:

- a full and detailed assessment of all aspects of the proposed project including proposed mitigation measures in relation to the Conservation Objectives of the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA.
- detailed assessment of the in-combination effects with other plans and projects including historical projects, current proposals, and future plans.
- no reasonable scientific doubt as to the absence of adverse effects on the integrity of River Boyne and River Blackwater SAC.
- no reasonable scientific doubt as to the absence of adverse effects on the integrity of River Boyne and River Blackwater SPA.

10.0 **Recommendation**

10.1. I recommend that the Board approve the proposed development, subject to conditions, for the reasons and considerations set out below.

11.0 **Reasons and Considerations**

In coming to its decision the Board had regard to:

(i) the nature, location, scale, and extent of the proposed development,

(ii) the characteristics of the site and its general vicinity,

(iii) European, national, regional, and county level support for renewable energy development such as:

- the government's Climate Action Plan 2021
- the government's Project Ireland 2040 National Planning Framework
- the Regional Spatial & Economic Strategy 2019-2031 published by the Eastern and Midland Regional Assembly
- the Meath County Development Plan 2021-2027 as adopted by Meath County Council,

(iv) the documentation submitted with the application, including the Natura Impact Statement, Planning and Environmental Report and appendices, and the Construction and Environment Management Plan,

(v) the nature of the landscape and absence of any specific conservation or amenity designation for the site,

(vi) the proximity of the site to the existing 110kV electricity transmission line,

(vii) the separation distances to houses or other sensitive receptors,

(viii) mitigation measures proposed for construction and operation of the site,

(ix) the submissions on file from prescribed bodies and the planning authority, and,

(x) the report of the inspector.

Appropriate Assessment – Stage 1

The Board agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the only European sites in respect of which the proposed development has the potential to have a significant effect are the River Boyne and River Blackwater SAC (Site Code 002299) and the River Boyne and River Blackwater SPA (Site Code 004232).

Appropriate Assessment – Stage 2

The Board considered the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the European sites, namely, the River Boyne and River Blackwater SAC (Site Code 002299) and the River Boyne and River Blackwater SPA (Site Code 004232), in view of the sites' conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

(i) the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,

(ii) the mitigation measures which are included as part of the current proposal, and,

(iii) the conservation objectives for the European sites.

In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European sites, having regard to the sites' Conservation Objectives.

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

Proper Planning and Sustainable Development

It is considered that, subject to compliance with the conditions set out below, the proposed development would accord with national, regional, and local planning and related policy, it would not have an unacceptable impact on landscape, ecology, or cultural or archaeological heritage, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, and it would be acceptable in terms of traffic safety and would make a positive contribution to Ireland's renewable energy requirements. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.0 Conditions

1. The proposed 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. In default of agreement, such matters shall be referred to An Bord Pleanála.

Reason: In the interest of clarity.

2. All of the environmental, construction, ecological and heritage-related mitigation measures, as set out in the Planning and Environmental Report and its associated appendices, the Natura Impact Statement, and the Construction and Environmental Management Plan, 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 interests of clarity and of the protection of the environment during the construction and operational phases of the development.

3. Prior to commencement of development the developer shall submit, for the written approval of the planning authority, an Amphibian Assessment Report to include the results of surveys of the pond to be replaced carried out over the full seasonal span when breeding adult common frogs or smooth newts, their spawn or larvae might be present i.e. from January to August inclusive. If breeding by frogs or newts is established the report shall incorporate an Amphibian Conservation Plan detailing the methodology to be adopted to conserve the amphibians present and avoid any injuries to them during the construction of the development. This conservation plan shall be implemented in full, and any transfer of amphibians, their spawn or larvae shall only take place on receipt of a licence to carry out such a transfer issued by the National Parks & Wildlife Service under the Wildlife Acts, 1976 to 2018.

Reason: To conserve and avoid the destruction or injury of common frog or smooth newt protected under the Wildlife Act, 1976 to 2018.

4. Details of the materials, colours, and textures of all the external finishes to the development shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of the visual amenity of the area.

5. 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 Tourism, Culture, Arts, Gaeltacht, Sport and Media.

(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.

6. 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(s) including area(s) 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 prevent the spillage or deposit of clay, rubble or other debris on the public road network;

(g) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

(h) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;

(i) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;

(j) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains;

(k) Hours of construction.

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 amenities, public health, and safety.

7. (a) Lighting shall be provided in accordance with a scheme, details of which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. All lighting within the site shall be cowled to prevent overspill outside the site.

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

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

8. Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services.

Reason: In the interest of public health.

9. (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 Leq,1h value of 55 dB(A) during the period 0800 to 2200 hours from Monday to Saturday inclusive.

(ii) An Leq,15 min value of 45 dB(A) at any other time. 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 1996:2007: Acoustics - Description and Measurement of Environmental Noise.

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

10. The landscaping scheme shown on drawing number LD.MLTWN 1.1 shall be carried out within the first planting season following commencement of development. All planting shall be adequately protected from damage until established. Any plants which die, are removed, or become seriously damaged or diseased, within a period of five years from the completion of the development shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interest of residential and visual amenity.

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

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

12. 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 provision and satisfactory completion of the development, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory completion of any part of the development.

Reason: To ensure satisfactory completion of the development.

Anthony Kelly

Planning Inspector

4th March 2022