



An
Bord
Pleanála

Inspector's Report

ABP-318526-23

Development

Proposed alterations to the previously permitted 110kV substation and underground grid connection.

Location

Bendinstown, Gilbertstown, Kellistown East, Kellistown West, Ballycurragh, Ardbearn and Ballynunnery, Co. Carlow

Applicant(s)

Garreenleen Solar Farm Limited

Type of Application

Section 146B – request to alter development approved under section 182A of the Planning and Development Act, 2000, as amended.

Date of Site Inspection

n/a (previously undertaken on 19th August 2022)

Inspector

Alaine Clarke

1.0 Introduction

- 1.1. Garreenleen Solar Farm Limited was granted approval (ABP ref. 313139-22) under section 182A of the Planning and Development Act 2000, as amended, for a 110kV electricity substation and underground grid connection to serve a permitted solar farm on 26th April 2018 subject to 13 conditions.
- 1.2. HW Planning submitted this request on behalf of Garreenleen Solar Farm pursuant to section 146B of the Planning & Development Act 2000, as amended, for alterations to that permission.

2.0 Site Location and Description

- 2.1. As previously described in the Inspector's Report of the original application the site is in a rural area in County Carlow c.1.2km from Rathoe village to the northeast, c. 5km from Tullow town to the north and c. 7km from Carlow town to the northwest.
- 2.2. The site of the permitted substation lies partly within lands to be developed as Garreenleen Solar Farm. The site falls from the east, along the public road, to the western boundary of the proposed substation, where it adjoins Garreenleen Stream, a narrow watercourse which flows north and joins with the Burren River 800m to the north. The Burren River joins the River Barrow and River Nore SAC (site code 002162) c.14km downstream. The land rises beyond the stream to the west, and is the site of archaeological monuments, a graveyard (RMP CW013-023003) and font (RMP CW013-023002). The location of the proposed permanent entrance on the L-7112 is located within the zone of influence of an enclosure (RMP CW013-024).
- 2.3. The proposed alterations to the permitted scheme are limited to the substation compound element of the permitted substation and grid connection development.

3.0 Planning History

- 3.1. **ABP 313139-22:** Approval granted in November 2022 for a 110kV substation with 110kV Eirgrid compound and 33kV customer compound; Two control buildings, lighting protection, perimeter security fencing and security lighting; 110Kv underground Grid connection c. 4km in length between proposed substation and the existing Kellis 220Kv substation including river, watermain and culvert crossings,

including horizontal directional drill crossings of the River Burren and Garreenleen Stream and associated works.

- 3.2. **Carlow Co. Co. Reg. Ref. 22/199:** Permission granted for an underground electricity interconnector cable comprising a 33kV triple circuit cable of c.92m to facilitate the interconnection from the permitted solar farm to a 110kV substation which is the subject to the application to An Bord Pleanála (Reference VA01.313139). The development is a revision to the approved layout of the solar farm previously permitted under ABP 307891-20.
- 3.3. **Carlow Co. Co. Reg. Ref. 22/163:** Permission granted for a solar farm and associated works, comprising a total area of c.128 hectares and includes amendments to a neighbouring solar farm planning permission (Carlow County Council planning ref. 20/143 & An Bord Pleanála ref. 307891-20) to facilitate future grid connection and additional access tracks for the proposed development.
- 3.4. **ABP 307891-20 (Carlow Co. Co. reg. ref. 20/143):** Permission granted for a solar farm comprising solar panels and ancillary development on a 127-hectare site.

4.0 Requested Alterations

- 4.1. The requested alterations relate to the substation element of the permitted development and are set out in the cover letter accompanying the application and are set out below. The primary driver, according to the application documentation, is to meet updated technical specification requirements of EirGrid, in addition to IPP compound operational improvements.
 - The addition of CT and VT measurement equipment, inclusive of associated plinths in the EirGrid compound;
 - The addition of underground cabling trenching in the EirGrid compound;
 - Reconfiguration of lighting pole arrangements in the substation, including provision of additional lighting poles in some areas/deletions in others in both Eirgrid and IPP compounds;
 - Addition of 2 no. lighting masts, one in the EirGrid compound and one in the IPP compound.

- Addition of communications chamber and rural supply kiosk in EirGrid compound.
- Addition of 110kV circuit breaker, VT, disconnector and earth switch in IPP compound.
- Larger 110 KV transformer in lieu of that permitted, plus provision of two earthing / auxiliary transformers, backup diesel generator/fuel tank and harmonic filter in IPP compound.
- Provision of new windows on IPP control building with additional ducting to west.
- Localised relocation of IPP control building to facilitate additional plant equipment.
- Minor revisions to the location of foul water and storm water drainage in line with IPP control building and transformer locations.
- All ancillary siteworks.

4.2. The application for amendments is accompanied by a number of documents, including:

- Addendum to Natura Impact Statement report, prepared by Ecology Ireland
- Proposed altered plans, sections and technical details,
- Planning Cover Statement,
- Landscape and visual letter by Macro Works.

5.0 **Legislative Basis**

5.1. Section 146B (1) of the Planning and Development Acts allows a person who intends to carry out a strategic infrastructure development to request the board to alter the terms of that approved development. Under sub-section 2 the board must then decide, as soon as is practicable, whether to do so would constitute a material alteration in the terms of the development. If the Board decides that it would not be material, then under section 146B (3)(a) it must alter the approval accordingly.

- 5.2. If the board decides that it would constitute a material alteration of the terms of the development, then under 146B(3) it shall require the requester to submit the information specified in Schedule 7A of the Regulations and any further information relevant to the characteristics of the proposed alteration and its likely effects on the environment.
- 5.3. Under 146B(4A) the Board is obliged to make a decision within 8 weeks of the receipt of the above information (Schedule 7A) as to whether the proposed alteration should be made, whether a different alteration from that sought should be made or whether to refuse to make the alteration. Under 146B(5) the Board can make the above determination where it first determines that the proposed alteration is not likely to have significant effects on the environment. In the event that the Board determines that the alteration would be likely to have significant effects on the environment then section 146C applies.
- 5.4. Where section 146C applies the board must require the person making the request to prepare an environmental impact statement and submit it to the board and the local authority, and to publish a notice stating that this statement has been submitted and that the submissions or observations upon it may be made to the board within a specified period of not less than 4 weeks. After that period that board may determine the matter under section 146B(3)(b) having regard to various matters set out in section 146C(6).

6.0 **Board Correspondence**

The Board informed Carlow County Council on 8th November 2023 of the request received and enclosed a copy of same. The planning authority was not invited to make any submission.

7.0 **Assessment**

- 7.1. The first consideration in relation to this request to alter the terms of the development approved under ref. ABP 313139-23 is to determine if the making of the alteration would constitute the making of a material alteration of the terms of the approved substation and underground grid connection development. I note the function of the

substation will remain unchanged i.e. to transport renewable energy generated by permitted adjacent solar farms to the national grid.

7.2. Physical Works/Alterations to Scheme

7.2.1. As stated above, the permitted scheme comprises the development of a substation and an underground grid connection, c. 4km in length, to connect a permitted solar farm to the Kellis substation. The proposed amendments relate to the substation element only and I note the overall scale of the substation remains unchanged at c. 125m x 565m.

7.2.2. The specific alterations to the scheme are set out in section 4 above. I have reviewed the drawings and accompanying documents submitted with the application and in my opinion, the proposed alterations are relatively minor in nature based on the following:

- The number of permitted light stands within the substation compound remains unchanged at 17, although some locations are slightly altered.
- The addition of 2 no. lighting masts from 3 to 5, which measure 16.5m in height, when read in the context of the overall development and having regard to their slimline form is not considered significant.
- The proposed ground level and finished floor levels of permitted structures remain unchanged.
- The addition of a communications chamber and rural supply kiosk in the Eirgrid compound are minor in scale.
- The permitted IPP building will be relocated slightly to facilitate additional plant equipment. 3 no. additional windows are also proposed to the IPP building, though I note the building dimensions remain as permitted (at c. 21m x 10m x height of 6.2m).
- The proposed introduction of trenching within the compound is not significant having regard to the scale and depth of works.
- The most notable change relates to the increase in scale of the 110kV transformer, plus provision of two earthing / auxiliary transformers and a new

backup diesel generator/fuel tank and harmonic filter in IPP compound. The 110 KV transformer, including the provision of two earthing / auxiliary transformers will comprise an area of c. 19m x 10m, representing an increase of c. 100 sqm. I note however that the amendments to the 110kV transformer will not exceed the roof pitch height in the adjoining IPP substation building.

- Addition of 110kV circuit breaker, VT, disconnecter and earth switch in IPP compound.
- Minor revisions to the location of foul water and storm water drainage in line with IPP control building and transformer locations. There is no change to the previously permitted specification for foul water or stormwater management on site.
- All ancillary siteworks. These are stated to be minor in the context of the permitted substation, there are no alterations to site levels. Cut and fill levels to create a flat substation compound will be as previously described and assessed under ABP-313139, with no alterations to berm and biodiversity areas to the east and west of the substation compound.

7.3. Environmental Considerations

I consider (below) the materiality of alterations having regard to the environmental sensitivities and potential effects of the proposed alternations.

7.3.1. Landscape and Visual

7.3.2. The site is located in an area designated as 'central lowlands' in the Landscape Character Assessment of the Carlow Development Plan 2022-2028. These areas are deemed to be "moderately sensitive to development" "with a capacity to absorb most types of development subject to the implementation of appropriate mitigation measures". There are no listed scenic routes or views/prospects in the immediate vicinity of the site.

7.3.3. I note that the design changes have been reviewed by landscape consultants, Macro Works and their statement that the proposed design changes will not alter the landscape character or result in any perceptible visible change from key identified local viewpoints.

- 7.3.4. I am satisfied having regard to the scale of amendments proposed and the location of the site in 'central lowlands' of the Carlow County Development Plan 2022-2028 that the proposed amendments will not have any perceptible change from a landscape and visual perspective.
- 7.3.5. Archaeological Heritage
- 7.3.6. As stated above, the proposed amendments relate to the site of the permitted substation and the substation compound location and area remain as permitted. I note there are no recorded archaeological sites within the site and the nearest archaeological sites are located west of the permitted substation are church (CW013-023001) no remains visible, graveyard (RMP CW013-023003) and font (RMP CW013-023002), no remains visible.
- 7.3.7. During the assessment of ABP 313139 it was considered that the visual impact of the substation on the archaeological sites of the church, graveyard and font will be moderate and long-term but that having regard to the Landscape Mitigation Plan and the proposals to create a berm up to 1.2m high and to plant a low-canopy woodland mix along the west and northern boundaries that there would be no undue detrimental impact on the setting of the archaeological sites .
- 7.3.8. Condition no. 12 of ABP 313139 requires the applicant to engage a suitably qualified archaeologist to carry out pre-development testing in areas of proposed ground disturbance and to prepare and submit an updated Archaeological Impact Assessment (AIA) report. I note that the applicant states that a programme of testing has been completed for the substation site and no notable archaeology has been identified, and that an updated AIA report has been submitted to Carlow Co. Co. Having regard to the foregoing I am satisfied that the proposed amendments will not have any perceptible change from an archaeological heritage perspective.
- 7.3.9. Residential Amenity
- 7.3.10. The application site is located within a large agricultural landholding, and nearest dwelling to the substation compound is c. 261m away. I note the Inspector's assessment of ABP 313139 which found that having regard to the separation distances, the nature and limited scale of the then proposed substation development and its lack of visibility in the wider area, that it was unlikely to result in any significant adverse impacts on residential amenity.

- 7.3.11. I note however that the proposed amendments include a backup diesel generator/fuel tank. No details regarding construction method or plant specification are provided. I note however that the proposed site layout plan indicates what appears to be an enclosure around the diesel generator/fuel tank which would contribute to noise reduction. Diesel generators by their nature can be noisy plants and design mitigation measures of permanent generator structures are standard practice. I note that the generator is a 'back up' solution and would not run continuously.
- 7.3.12. In the event that the Board is minded to grant permission, I consider it appropriate to alter the terms of ABP 313139 to provide for (i) mitigation measures to reduce noise impacts from the proposed backup generator and (ii) a standard noise-limiting condition pertaining to the overall development. Subject to these conditions and having regard to the 'backup' nature of the proposal, I am satisfied that there are no materially different environmental impacts arising from those as assessed under 313139 in relation to this element of the alteration and that there will be no significant or material impact on residential amenity arising from the proposed amendments.
- 7.3.13. Flood Risk/Drainage
- 7.3.14. The substation site is not located in an area at risk of flooding and no changes to the permitted drainage methods are proposed.
- 7.3.15. With respect to the proposed diesel generator/fuel tank, the addendum NIS report makes no reference to this specific element of work. I note the application cover letter, with respect to flood risk and drainage, states "surface water runoff from the buildings may fall onto these areas enabling the runoff to infiltrate directly to the ground". I note the document 'Bendinstown 110kV Substation Construction Methodology' which was included as part of the planning application documentation of ABP 313139 and which states:

"Drainage arising from roof surfaces within the substation and from transformer bunds will be discharged to existing site drainage following passage through an appropriate oil interceptor. A separate Drainage Report is provided as part of this planning submission. The grid transformer will be located within an impermeable bund capable of oil retention in the event of a total leakage from the transformer. The bund will have a capacity of at least

110% of the volume of oil to preclude any release of contaminants to the environment”.

The Substation Drainage Report which accompanied ABP 313139

“The surface water generated in the bunded areas will discharge to the existing drainage via a Class 1 Full Retention Oil Separator. The electrical transformer in the substation is oil filled equipment and, as such, is protected with impermeable bunds. Surface water generated in this bund will be pumped out by an oil sensitive pump ensuring that only non-contaminated water enters the site drainage network.

The substation will be constructed on a level platform, with an excess of excavated material. It is proposed to retain this excavated material on site to form berms around the substation compound which will provide screening and biodiversity benefits. These berms will be formed in a way that will maintain the free-draining nature of the site. This can be achieved during formation by allowing regular gaps in the berms to allow surface water to follow its natural path. A specialist hydrologist will be appointed during construction to oversee berm formation and ensure adequate surface water drainage is maintained”.

7.3.16. Having regard to the foregoing and in the absence of bunding and construction details in respect of the proposed fuel tank it is recommended, should be Board be minded to grant permission for the proposed amendments, to attach a condition requiring an impermeable bund in the event of a fuel leakage from the fuel tank. A condition to this effect is included in the Schedule of Conditions for the Board’s consideration.

7.3.17. Ecology

7.3.18. I note the Inspector’s assessment of ABP 313139 considered the substation site of low local importance overall in relation to biodiversity given its use as long-term arable/agriculture purpose and that subject to mitigation measures as outlined in the Ecological Impact Assessment and the Outline Construction Methodology that the development was acceptable from an ecological perspective.

7.3.19. In my opinion, subject to adherence of conditions pertaining to ABP313139 and the installation of the proposed fuel tank within an impermeable bund I am satisfied that

the proposed amendments, being minor in scale and within the permitted substation compound, will not have a significant impact on ecology. Matters relating to impact on Natura 2000 sites are considered in section 8.0 of this Inspector's report.

7.3.20. Conclusion

I consider that the alterations sought do not constitute the making of a material alteration of the permitted development and would not give rise to significant environmental effects beyond those already considered in the Board's assessment of ABP 313139.

7.3.21. EIA Screening

7.3.22. I note that an EIA was not undertaken in respect of the permitted substation and underground connection, ABP 313139 refers, as no element of the permitted development fell into a class of development contained in Schedule 5, Parts 1 or 2. I am satisfied that the proposed amendment development does not therefore constitute a development which requires a mandatory EIA, nor screening for EIA.

8.0 **Appropriate Assessment**

8.1. **Introduction**

8.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and 177V of the Planning and 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
- Screening the need for appropriate assessment
- The Addendum to Natura Impact Statement
- Appropriate assessment of implications of the proposed development on the integrity each European site

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

- 8.2.1. 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.

8.3. Brief Description of Development

- 8.3.1. The proposed development is described in Section 4 above and in Section 2 of the Addendum to Natura Impact Statement. In summary, minor modifications to a permitted 110kV substation are proposed including slight relocation of the IPP building, slight increase in the 110kV transformer, a backup diesel generator/fuel tank, an increase in lightning masts from 3 to 5, trenching and relocation of lighting poles.
- 8.3.2. The permitted development, ABP 313139, comprises a 110kV substation with 110kV Eirgrid compound and 33kV customer compound; two control buildings, lighting and fencing; grid connection between proposed substation and the existing Kellis 220kV substation comprising 110kV underground electricity cables of c.4.099km including river, watermain and culvert crossings, including horizontal directional drill crossings of the River Burren and Garreenleen Stream; temporary construction access (from L-7111) and permanent operational access (from L-7112, temporary construction compound; water drainage, water services, site restoration and landscaping. A Natura Impact Statement (NIS) was submitted as part of the planning application. The appropriate assessment screening report was included as part of the NIS, prepared by Ecology Ireland Ltd, dated March 2022.
- 8.3.3. As part of its assessment of ABP 313139, the Board completed an Appropriate Assessment Screening exercise which resulted in the River Barrow and River Nore SAC, site code 002162, being screened in and brought forward to Stage 2

Appropriate Assessment. The Blackstairs Mountains SAC and the Slaney River Valley SAC were screened out. The Board concluded that the proposed development, by itself, or in combination with other plans or projects, would not be likely to adversely affect the integrity of this European Site in view of the site's conservation objectives.

- 8.3.4. The requester has submitted an "Addendum to Natura Impact Statement" prepared by Ecology Ireland Wildlife Consultants Ltd, dated November 2023. The brief report describes the proposed design amendments and provides an assessment of the proposed amendments stating that the potential hydrological connectivity with the River Barrow and River Nore SAC via the grid connection route was the principal trigger for 'screening in' this SAC and the requirement for the preparation of the NIS, noting that the permitted underground grid route from the permitted Bendistown substation to Kellis substation crosses watercourses within the River Barrow catchment and in the absence of appropriate environmental control, it was concluded that there is some potential for the contamination of watercourses through the mobilisation of contaminants during construction and a mitigation strategy was designed to address such risks. The addendum states that the proposed changes are localised to the substation, are technical in nature and relatively limited in extent and that there is no element of the proposed changes which give rise to any significant changes in the associated environmental risks with respect to potential effects on the River Barrow and River Nore SAC, or any other European designated site. The Addendum states that there is no change in the residual risks as assessed in the NIS prepared for the permitted substation and grid connection, and that there is no expectation that the proposed amendments has any potential to result in any adverse effects on the integrity of the River Barrow and River Nore SAC in light of the site's Conservation Objectives.
- 8.3.5. Having reviewed the documents and submissions I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites.

8.4. Screening for Appropriate Assessment - Test of likely significant effects

- 8.4.1. The proposed development is not directly connected to or necessary to the management of any European site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).
- 8.4.2. The proposed development is examined in relation to any possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.
- 8.4.3. 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:
- Construction related – uncontrolled surface water/silt runoff and construction related pollution;
 - Operation related – fuel pollution/surface water and groundwater contaminants.
 - Habitat disturbance /species disturbance (construction and operational).

8.5. European Sites

- 8.5.1. The development site is not located in or immediately adjacent to any European site. A summary of European Sites that occur within the zone of influence identified by the applicant is presented in Table 8.1 below, along with their qualifying interests.
- 8.5.2. While the proposed development that forms the basis of this application is relatively limited in scale and extent and is at a significant remove from the nearest European Site, I consider that it nevertheless has the possibility, in combination with the associated permitted solar farm development and the permitted substation and grid connection development, to result in significant effects on the River Barrow and River Nore SAC, due to the hydrological pathway between the application site and the European Site. Table 8.1 below summarises the potential significant effects in view of the conservation objectives of those sites.

8.5.3. Having regard to the limited scale of proposed amendments to the permitted development and its likely direct, indirect and cumulative effects, the source-pathway-receptor principle and sensitivities of the ecological receptors, I consider that only the River Barrow and River Nore SAC could be affected by the proposed development.

8.6. **Appropriate Assessment Screening Determination**

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

8.6.2. The possibility of significant effects on other European sites has been excluded on the basis of objective information. The following European sites have been screened out for the need for appropriate assessment:

- Slaney River Valley SAC (00781)
- Blackstairs Mountains SAC (00770)

8.6.3. 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.

Table 8.1: AA Screening Summary Matrix: European Sites for which there is a possibility of significant effects (or where the possibility of significant effects cannot be excluded without further assessment)

European Site name [Site Code] Qualifying Interest/Special Conservation Interest	Conservation Objective(s)	Distance (km)	Is there a possibility of significant effects in view of the conservation objectives of the site?		
			Habitat Loss/Deterioration	Water quality/pollution	Disturbance/Displacement
Slaney River Valley SAC (00781) <ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] • <i>Petromyzon marinus</i> (Sea Lamprey) [1095] • <i>Lampetra planeri</i> (Brook Lamprey) [1096] • <i>Lampetra fluviatilis</i> (River Lamprey) [1099] • <i>Alosa fallax fallax</i> (Twaiite Shad) [1103] • <i>Salmo salar</i> (Salmon) [1106] 	To maintain or restore the favourable conservation condition of the qualifying interests	4.6km	No Due to distance from habitat features and lack of hydrological connections to the habitat for which this site is designated.	No Due to distance and lack of hydrological connections to the habitat for which this site is designated. The Slaney River Valley SAC is located in a different river catchment to the study site.	No Due to distance and lack of hydrological connections to the habitat for which this site is designated.

<ul style="list-style-type: none"> • Lutra lutra (Otter) [1355] • Phoca vitulina (Harbour Seal) [1365] 					
<p>River Barrow River Nore SAC (002162)</p> <ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Reefs [1170] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] • European dry heaths [4030] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016] • <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] 	<p>To maintain or restore the favourable conservation condition of the qualifying interests</p>	<p>8.5km</p>	<p>Yes</p> <p>Construction phase elements of the project (in particular potential overland flow of construction stage silt/pollutants to the Burren River.</p> <p>Operational phase – potential for fuel leaks and risk of surface water contamination.</p>	<p>Yes</p> <p>Construction related run-off: contaminants, silt, increased turbidity.</p> <p>Operational phase – potential for fuel leaks and risk of surface water and groundwater contamination.</p>	<p>Yes</p> <p>Potential disturbance or displacement of salmon, otter and lamprey species due to water quality impacts during construction or disturbance to otter foraging routes along connecting watercourses.</p>

<ul style="list-style-type: none"> • Austropotamobius pallipes (White-clawed Crayfish) [1092] • Petromyzon marinus (Sea Lamprey) [1095] • Lampetra planeri (Brook Lamprey) [1096] • Lampetra fluviatilis (River Lamprey) [1099] • Alosa fallax fallax (Twaiite Shad) [1103] • Salmo salar (Salmon) [1106] • Lutra lutra (Otter) [1355] • Trichomanes speciosum (Killarney Fern) [1421] • Margaritifera durrovensis (Nore Pearl Mussel) [1990] 					
<p>Blackstairs Mountains SAC (00770)</p> <ul style="list-style-type: none"> • Northern Atlantic wet heaths with Erica tetralix [4010] • European dry heaths [4030] 	To maintain the favourable conservation condition of the qualifying interests	12.8km	No Due to distance from habitat features.	No Due to distance and lack of hydrological connections to the habitat for which this site is designated.	No Due to distance and lack of hydrological connections to the habitat for which this site is designated.

8.7. The Addendum to the Natura Impact Statement

- 8.7.1. As noted above, the permitted development, application ref. ABP 313139 included a NIS (Ecology Ireland, March 2022) which examined and assessed potential adverse effects of the development on the River Barrow River and River Nore SAC (site code 002162). The NIS concluded that proposed development will not adversely affect the integrity of the Natura 2000 site, and that best practice measures and mitigation measures have been identified to ensure that potential pollutant sources are not released during the proposed development (particularly during the laying of the underground grid cable) to the receiving environment such that there will be no risk of adverse effects on the qualifying interests of the SAC within the project's zone of influence.
- 8.7.2. The requester has submitted an "Addendum to Natura Impact Statement" prepared by Ecology Ireland Wildlife Consultants Ltd, dated November 2023. A copy of the NIS submitted with the application under ABP 313139 is submitted with the amendment application.
- 8.7.3. The addendum report describes the proposed design amendments and provides a brief assessment of the proposed amendments stating that the potential hydrological connectivity with the River Barrow and River Nore SAC via the grid connection route was the principal trigger for 'screening in' this SAC and the requirement for the preparation of the NIS, noting that the permitted underground grid route from the Bendistown substation to Kellis substation crosses watercourses within the River Barrow catchment and in the absence of appropriate environmental control, it was concluded that there is some potential for the contamination of watercourses through the mobilisation of contaminants during construction and a mitigation strategy was designed to address such risks. The addendum report states that the proposed changes are localised to the substation, are technical in nature and relatively limited in extent and that there is no element of the proposed changes which give rise to any significant changes in the associated environmental risks with respect to potential effects on the River Barrow and River Nore SAC, or any other European designated site. The Addendum states that there is no change in the residual risks as assessed in the NIS prepared for the permitted substation and grid connection, and that there is no expectation that the proposed amendments has any potential to result in any

adverse effects on the integrity of the River Barrow and River Nore SAC in light of the site's Conservation Objectives.

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

8.8. **Appropriate Assessment of implications of the proposed development**

8.8.1. The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest features of the European site 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.

8.8.2. The following Guidance has been adhered to in my assessment:

- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service, Dublin
- EC (2021) Assessment of plans and projects significantly affecting Natura 2000 sites. Revised Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC

8.8.3. The following site is subject to Appropriate Assessment:

- River Barrow and River Nore SAC (site code 002162).

8.8.4. Table 8.2 summarise the Appropriate Assessment and site integrity test. The conservation objectives for the European Site have been examined and assessed with regard to the identified potential significant effects 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 European site.

8.9. River Barrow and River Nore SAC, site code 002162

8.9.1. This River Barrow and River Nore SAC consists of the freshwater stretches of the Barrow and Nore River catchments as far upstream as the Slieve Bloom Mountains, and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. The site passes through eight counties – Offaly, Kildare, Laois, Carlow, Kilkenny, Tipperary, Wexford and Waterford. Overall, the site is of considerable conservation significance for the occurrence of good examples of habitats and of populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive. Furthermore, it is of high conservation value for the populations of bird species that use it. The occurrence of several Red Data Book plant species including three rare plants in the salt meadows and the population of the hard water form of the Freshwater Pearl Mussel, which is limited to a 10 km stretch of the Nore, add further interest to this site.

8.9.2. The Conservation Objectives for the River Barrow and River Nore SAC notes that the overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. The NPWS has prepared site specific conservation objectives, attributes and targets (version 1.0, dated 19th July 2011) for the qualifying interests (QI) associated with the River Barrow and River Nore SAC, which can be found online at the NPWS website. The conservation objectives for the specific QI are set out in Table 8.2 below. I consider these qualifying interests are at risk of potential impact from the proposed development:

- Petrifying springs with tufa formation (Cratoneurion) [7220]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Austropotamobius pallipes* (White-clawed Crayfish) [1092]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]

- *Salmo salar* (Salmon) [1106]
- *Lutra lutra* (Otter) [1355]

8.9.3. A description of this site and its Conservation Objectives and Qualifying Interests are summarised in Table 8.2 of this report as part of my assessment. I have also examined the Natura 2000 data forms and other supporting documents for this site available through the NPWS website.

8.9.4. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the European site arises from:

- Impacts to water quality /surface water pollution/ siltation during the construction phase and;
- Operation related – fuel pollution/surface water and groundwater contamination, and;
- potential disturbance and or displacement of species listed as qualifying interests due to potential water quality impacts during construction.

8.9.5. There will be no direct loss of habitat for these species, as the construction work does not fall within the SAC.

8.9.6. It is considered that there may be potential for the receiving waters within the SAC to be altered as a result of the indirect ingress of pollutants such as hydrocarbons, chemicals or sediments during the construction phase and during operation phase (from the proposed fuel tank), reducing water quality and potentially having a negative effect on water quality, which could potentially affect habitats and/or the distribution or abundance of species. It is accepted therefore that mitigation would be required to control pollutant emissions to the water environment.

8.9.7. In the absence of suitable controls and measures there is the possibility that the construction and/or operation phases of the proposed development to be altered, could give rise to in-combination effects related to water quality pollution, including contamination, sedimentation and siltation and potential for species displacement.

8.9.8. In respect of cumulative impacts, there are a number of related and permitted solar farm developments in the general region of the permitted project. I note Carlow

County Council (CCC) reg. ref. 22/163 which was authorised by CCC, post the decision on ABP 313139 and, granted permission for a 128ha solar farm and included amendments to the solar farm which the permitted substation will serve (i.e. ABP 307891 refers) which application also contained a NIS. Having reviewed this application and development proposals in the vicinity I do not consider there are any specific in-combination effect on the River Barrow and River Nore SAC that arises from other plans or projects in the vicinity.

- 8.9.9. The Addendum to NIS (November 2023) refers to the mitigation strategy which was designed to address to risks upon sensitive habitats and species of the SAC. The mitigation strategy is set out in section 4 of the NIS (March 2022) and details the mitigation measures to be employed during construction, including environmental management, duties, and responsibilities of personnel. These mitigation measures are set out in detail in Table 8.2. below and includes bunding of the proposed oil tank and associated surface water drainage measures. In this regard, I refer to section 2.1 of the NIS (March 2022), which states in relation to the substation compound:

“The surface water generated in the bunded areas will discharge to the existing drainage via a Class 1 Full Retention Oil Separator. The electrical transformer in the substation is oil filled equipment and, as such, is protected with impermeable bunds. Surface water generated in this bund will be pumped out by an oil sensitive pump ensuring that only non-contaminated water enters the site drainage network.”

- 8.9.10. In consideration of the outlined mitigation measures which shall be implemented to prevent any potential impact on the qualifying interests of the River Barrow and River Nore SAC, I am satisfied that no residual impact is anticipated as part of this proposal.

- 8.9.11. With respect to conditions, I consider it appropriate, in the event of a grant of permission, and having regard to the nature of the works hydrologically connected to the SAC to require that condition no. 4 of ABP 313139 is altered to include the following:

- the fuel tank is bunded and connected to the surface water drainage system.

Table 8.2 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.

River Barrow River Nore SAC (002162) - Summary of Key issues that could give rise to adverse effects:					
<ul style="list-style-type: none"> • Water quality impacts due to pollutants or soil/silt run-off during construction phase • Disturbance of QI species 					
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?
Estuaries [1130]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	No - Located > 40km downstream, considered to be outside the zone of influence of this project	Not applicable / none necessary	None	Yes
Mudflats and sandflats not covered by seawater at low tide [1140]					
Reefs [1170]					
Salicornia and other annuals colonising mud and sand [1310]					

Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330]	Only generic Conservation Objectives are defined for this SAC, with no published targets or attributes.				
Mediterranean salt meadows (Juncetalia maritimi) [1410]					
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]		No - the typical species of the tufaceous sub-type is located in the Kings tributary of the Nore.	Not applicable / none necessary	None	Yes
Petrifying springs with tufa formation (Cratoneurion) [7220]		Yes; distribution of habitat is unknown; rely on permanent irrigation, usually from upwelling groundwater sources or seepage sources.	Bunding of the fuel tank and tie-into permitted surface water drainage system. Best practice pollution prevention methods are	No likely significant in-combination effects	Yes No doubt as to the effectiveness or implementation

		Possible water quality impact arising from accidental surface water pollution.	set out in the Construction Methodology Statement and section 4.2 of the NIS, and include: -Provision of 50m exclusion zones and barriers (silt fences) between any excavated material and any surface water features to prevent sediment washing into the receiving water environment; -Concrete or concrete contaminated water run-off will not be allowed to enter any watercourses. Any pouring of concrete (delivered to site ready mixed) will only be carried out in dry weather;		of mitigation measures proposed to prevent indirect effects.
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]		Yes -the Barrow catchment is identified as previously recording of this species. Current status is unknown / under review. Possible water quality impact arising from accidental surface water pollution or siltation arising from construction.		No likely significant in-combination effects	Yes, No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects.
Austropotamobius pallipes (White-clawed Crayfish) [1092]		Yes – occurs in the River Barrow downstream of the project site. Possible water quality impact arising from accidental surface water		No likely significant in-combination effects	Yes, No doubt as to the effectiveness or implementation of mitigation measures

		pollution or siltation arising from construction.	-Reception and launch pits for the directional drilling process shall be excavated a minimum of 20m from the stream banks;		proposed to prevent indirect effects.
Petromyzon marinus (Sea Lamprey) [1095]		Yes – occurs downstream of project site. Lamprey are sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase.	-Wash-down water from exposed concrete surfaces will be trapped to allow sediment to settle out and reach neutral pH before clarified water is released to the drain system or allowed to percolate into the ground;	No likely significant in-combination effects	Yes; No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects.
Lampetra planeri (Brook Lamprey) [1096]		Yes – lamprey species recorded downstream at Rathoe Bridge (River Barrow Catchment Survey, 2015, IFI).	-Ecological Clerk of Works to be appointed to monitor compliance with mitigation measures and conditions.	No likely significant in-combination effects	Yes; No doubt as to the effectiveness or implementation of mitigation measures proposed to
Lampetra fluviatilis (River Lamprey) [1099]		Lamprey are sensitive to indirect effects from pollution of watercourses with chemicals, silt,			

		contaminants etc. during construction phase.			prevent indirect effects.
Salmo salar (Salmon) [1106]		Yes - Widespread distribution throughout SAC. Salmon are sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase.		No likely significant in-combination effects	Yes; no doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects.
Lutra lutra (Otter) [1355]		Yes- Widespread distribution throughout SAC. Otters may be sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants, noise, etc. during construction phase.	In addition to the mitigation measures referenced above as detailed in the NIS, a pre-works survey will be carried out by a qualified ecologist to identify the presence of any protected fauna on-site	No likely significant in-combination effects	Yes; no doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects

Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]		No - not subject to potential hydrological Impacts	Not applicable / none necessary	None	Yes
European dry heaths [4030]		No - not subject to potential hydrological Impacts	Not applicable / none necessary	None	Yes
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]		No - Located > 40km downstream, considered to be outside the zone of influence of this project.	Not applicable / none necessary	None	Yes
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]		No – while periodic flooding is essential to maintain alluvial woodlands along river flood plains in some instances, this habitat is located > 20km downstream and is considered to be outside	Not applicable / none necessary	None	Yes

		the zone of influence of this project			
Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]		No - occurs >40km downstream; outside zone of influence for this project	Not applicable / none necessary	None	Yes
Alosa fallax fallax (Twaite Shad) [1103]		No – occurs >30km downstream; outside of zone of influence	Not applicable / none necessary	None	Yes
Trichomanes speciosum (Killarney Fern) [1421]		No - occurs >40km downstream; outside zone of influence for this project	Not applicable / none necessary	None	Yes
Margaritifera durrovensis (Nore Pearl Mussel) [1990]		No – not downstream of project; in the Nore Catchment.	Not applicable / none necessary	None	Yes
<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 the River Barrow and River Nore SAC in light of the site's Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects</p>					

8.10. **Appropriate Assessment Conclusion**

- 8.10.1. The proposed alterations to the permitted scheme have been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000, as amended. Having carried out screening for Appropriate Assessment of the project, it was concluded that the proposed development in combination with the associated permitted solar farm development may have a significant effect on the River Barrow and River Nore SAC (Site Code 002162). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of the European Site in light of its conservation objectives.
- 8.10.2. Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the River Barrow and River Nore SAC (Site Code 002162) or any other European site, in view of the site's Conservation Objectives. This conclusion is based on a complete assessment of all aspects of the proposed project and there is no reasonable doubt as to the absence of adverse effects.

9.0 **Recommendation**

I recommend that the Board decides that the making of the alterations subject of this request do not constitute the making of a material alteration to the terms of the development as granted permission under ABP 313139 and that the permitted development shall be altered in accordance with the plans and particulars received by An Bord Pleanála on 24th November 2023.

DRAFT ORDER

REQUEST received by An Bord Pleanála on the 24th day of November, 2023 from HW Planning of 5 Joyce House, Barrack Square, Ballincollig, Co. Cork on behalf of Garreenleen Solar Farm Limited under section 146B of the Planning and Development Act, 2000, as amended, to make alterations to the permitted 110kV substation and underground grid connection, a strategic infrastructure development

the subject of a permission granted under An Bord Pleanála reference number 313139-22.

WHEREAS the Board made a decision to grant permission, subject to conditions, for the above-mentioned development by order dated 2nd November 2022, AND WHEREAS the Board has received a request to alter the terms of the development, the subject of the permission,

AND WHEREAS the proposed alteration is described as follows:

- The addition of CT and VT measurement equipment, inclusive of associated plinths in the EirGrid compound;
- The addition of underground cabling trenching in the EirGrid compound;
- Reconfiguration of lighting pole arrangements in the substation, including provision of additional lighting poles in some areas/deletions in others in both EirGrid and IPP compounds;
- Addition of 2 no. lighting masts, one in the EirGrid compound and one in the IPP compound;
- Addition of communications chamber and rural supply kiosk in EirGrid compound;
- Addition of 110kV circuit breaker, VT, disconnecter and earth switch in IPP compound;
- Larger 110 KV transformer in lieu of that permitted, plus provision of two earthing / auxiliary transformers, backup diesel generator/fuel tank and harmonic filter in IPP compound;
- Provision of new windows on IPP control building with additional ducting to west;
- Localised relocation of IPP control building to facilitate additional plant equipment;
- Minor revisions to the location of foul water and storm water drainage in line with IPP control building and transformer locations;
- All ancillary siteworks.

AND WHEREAS the Board decided, in accordance with section 146B(2)(a) of the Planning and Development Act 2000, as amended, that the proposed alteration would not result in a material alteration to the terms of the development, the subject of the permission,

AND WHEREAS having considered all of the documents on file and the Inspector's report, the Board considered that the making of the proposed alteration would not be likely to have significant effects on the environment or on any European Site,

NOW THEREFORE in accordance with section 146B(3)(a) of the Planning and Development Act, 2000, as amended, the Board hereby alters the above mentioned development so that the permitted development shall be altered, in accordance with the plans and particulars received by An Bord Pleanála on the 24th November 2023 subject to:

Condition no. 4 shall be altered to provide 4(d) and 4(e) and 4(f) as follows:

(d) The backup diesel generator/fuel tank shall be bunded and connected to the surface water drainage system.

(e) Prior to commencement of development, an operational noise mitigation plan, which includes for the backup diesel generator, shall be submitted to and agreed in writing with the planning authority.

(f) 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.

All sound measurement shall be carried out in accordance with ISO

Recommendation 1996:2007: Acoustics - Description and Measurement of Environmental Noise.

MATTERS CONSIDERED

In making its decision, the Board had regard to those matters to which, by virtue of the Planning and Development Acts and Regulations made thereunder, it was required to have regard.

REASONS AND CONSIDERATIONS

Having regard to:

- (i) the nature and scale of the Strategic Infrastructure Development permitted under An Bord Pleanála Reference Number ABP 313139-22 for this site,
- (ii) the screening for appropriate assessment and appropriate assessment carried out in the course of that application,
- (iii) the limited nature and scale of the alterations,
- (iv) the absence of any significant new or additional environmental effects (including those in relation to Natura 2000 sites) arising as a result of the proposed alterations,
- (v) the absence of any new or significant issues relating to the proper planning and sustainable development of the area arising from the proposed alterations, and
- (vi) the report of the Board's Inspector it is considered that the proposed alterations would not be material. In accordance with section 146B(3)(a) of the Planning & Development Act, as amended, the Board hereby makes the said alterations.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has

influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Alaine Clarke
Senior Planning Inspector

1st February 2024