

S146B Planning Statement

For Development at Shannonpark, Co. Cork.

on behalf of Ballinrea Solar Farm Limited

March 2026



McCutcheon Halley
CHARTERED PLANNING CONSULTANTS

Document Control Sheet

Client	Ballinrea Solar Farm Limited	
Project Title	S. 146B Application	
Document Title	S146B Planning Statement	
Document Comprises	Volumes	1
	Pages (Including Cover)	26
	Appendices	1
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Office of Issue	Cork	
Document Information	Revision	0
	Status	Draft
	Issue Date	March 2026

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1. Introduction

This Planning Statement has been prepared by McCutcheon Halley Planning Consultants on behalf of our client, Ballinrea Solar Farm Limited (Ørsted), in support of a request under Section 146B of the Planning and Development Act 2000 (as amended) [PDA 2000] to alter a permitted Strategic Infrastructure Development (SID). The permitted SID comprises the Ballinrea 110kV Substation and Grid Connection located at Ballinrea and adjacent townlands, County Cork, which was granted permission by An Coimisiún Pleanála (the Commission) under Planning Ref. ABP-317706-23 pursuant to Section 182A of the PDA 2000. The proposed alteration subject of this S146B request seeks a minor realignment (approx. 370m) of the underground grid connection (which is approximately 6.65km in total) from the L2473 public road corridor to adjacent consented third-party lands at Shannonpark, Co. Cork.

The realigned section would deviate by approximately 10 metres northwards from the permitted route, exiting the public road via an existing access into the adjoining agricultural lands and traversing this land for approximately 370 metres before rejoining the permitted route at the M28 crossing to the east (refer to Drawing Nos. 300101179-DR-802 and 300101179-DR-803). The need for the proposed alteration arises from construction challenges relating to the presence of an existing Irish Water main within the Shannonpark Road (L2473).

The purpose of this Planning Statement is to provide an overview of the proposed alteration within the context of the permitted SID development, to outline the need for the proposed alteration to the grid connection route and to assess the key planning and environmental effects arising from the proposed alteration.

This Planning Statement sets out that, in the opinion of the applicant and for the reasons outlined herein, the proposed alteration does not constitute a material alteration to the development as permitted under Planning Ref. ABP-317706-23.

2. Permitted Development and Proposed Alteration

2.1 Permitted Development (Pl. Ref. ABP-317706-23)

Planning permission for a 110kV electrical substation at Ballinrea, together with a tail-fed underground grid connection linking the Ballinrea substation to the existing Raffeen 220kV substation, including a new 110kV cable bay at Raffeen and all associated works, was granted by An Coimisiún Pleanála under Planning Reference ABP-317706-23 on 8 April 2024 (a copy of the Order is set out in Appendix A). The permitted development is located within the townlands of Ballinrea, Ballinrea South, Ardnacloghy, Shannonpark, Hilltown, Carrigaline Middle, Ballyhemiken, Carrigaline, Carrigaline East and Raffeen, Co. Cork (refer to figure 2.1).

The permitted development comprises the following;

- i. *The construction of a permanent 110 kV electrical substation in the townland of Ballinrea at the site of the permitted Ballinrea Solar Farm (Pl Ref. 17/6784, ABP Ref. PL04.303013). The proposed 110kV electrical substation includes 2 no. single storey control buildings with welfare facilities, associated electrical plant and apparatus, security fencing, entrance gate, fire wall, 4 no. lighting columns, 1 no. telecoms pole (c. 20.7m above ground), 7 no. lightning masts (c. 18m above ground), underground cabling, wastewater holding tank, watermains connection, site drainage; and all ancillary works;*
- ii. *1 no temporary construction compound with temporary site offices and staff facilities, in the townland of Ballinrea;*
- iii. *Realignment of the permitted internal access track permitted under Pl Ref. 17/6784, ABP Ref. PL04.303013 and the provision of a new internal cable maintenance track;*
- iv. *Temporary alterations to the site entrance for construction phase and reinstatement of same post-construction;*
- v. *110kV tail fed underground electricity interconnection cables c. 6.25km in length and associated fibre cable connecting the proposed 110kV Substation at Ballinrea to the existing 220kV Raffeen Substation with underground ducting, 9 no. joint bays, communication chambers and associated site development and reinstatement works;*

- vi. A new 110kV cable bay, electrical equipment, the provision of a new cable maintenance track and ancillary works at the existing 220kV Raffeen Substation compound;
- vii. All associated site development works, landscaping and apparatus.

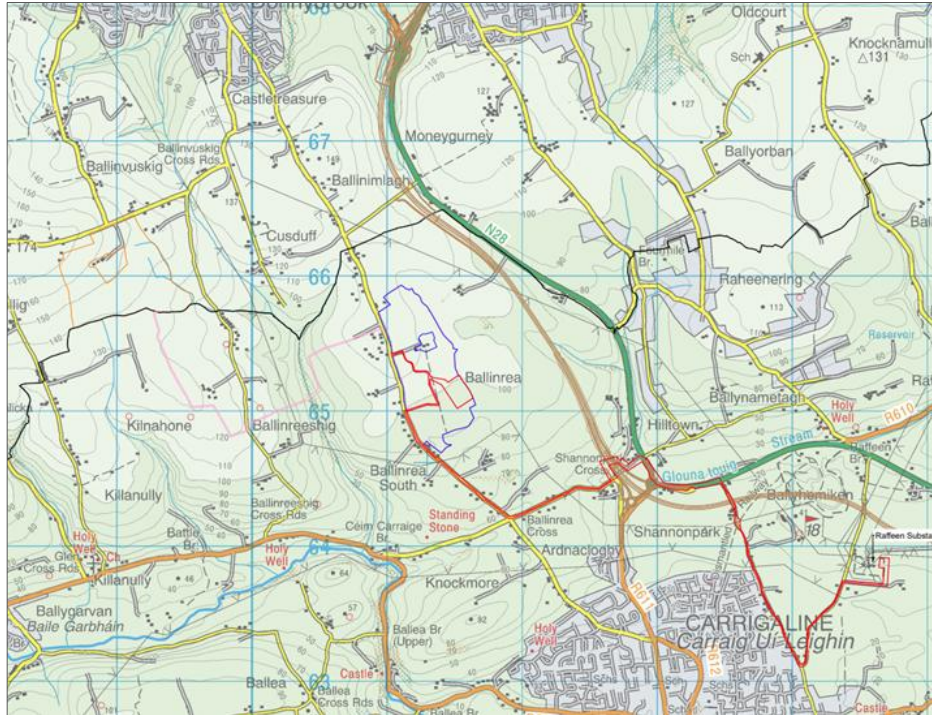


Figure 2.1 Extract of overall site location map prepared as part of the parent planning application (ABP-317706-23)

The 110kV substation and grid connection to Raffeen 220kV substation will facilitate the connection of two permitted solar farms in the local area to the national grid:

- Ballinree Solar Farm – permitted under Planning Ref. No. 17/6784 & ABP-303013-18, as subsequently modified by Planning Ref. No. 23/4563 & ABP-318915-24;
- Ballinvuskig Solar Farm – permitted under Planning Ref. No. 19/5371 & ABP-305186-19, as modified by Planning Ref. No. 23/41837 & ABP-318925-24.

2.1.1 Status of Construction Works for Associated Permitted Developments

Ballinree solar farm is over midway through construction with civil works and piling for solar PV arrays nearing completion. Mechanical assembly and cable installations are also ongoing across the site.

Civil works are ongoing on Ballinvuskig Solar Farm and ramming works commenced in January 2026 with completion forecast for early April 2026. All major solar farm deliveries including, PV modules, support structures, inverters and transformer centres were complete as of early January 2026.

The civil installation for the 33kV cable connection between the Ballinrea and Ballinvuskig sites is complete and the IPP substation and 110kV substation works are significantly advanced with buildings substantially complete from a civils perspective and electrical fit-out ongoing. The grid transformer was delivered to site in late January 2026.

2.2 Proposed Alteration

The permitted 110kV underground grid connection extends for approximately 6.65km between the permitted Ballinrea 110kV Substation and the existing Raffeen 220kV Substation. The proposed alteration relates to a localised section of the permitted grid connection, located along the Shannonpark Road (L-2473), between the Shannonpark Roundabout and the M28 crossing.

The alteration concerns an approximate 370 metre section of the permitted underground cable route, located between Joint Bay 5 and Joint Bay 7. It is proposed to realign this section of the grid connection from within the public road corridor to the adjoining consented third-party lands immediately north of the road.

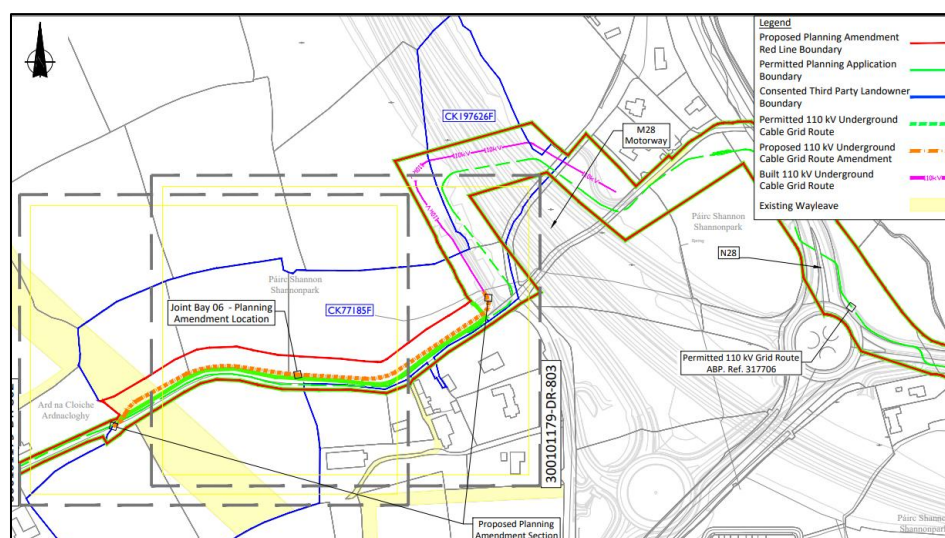


Figure 2.2: Extract of site layout plan showing the relocation of the cable (Drawing No. 300101179-DR-801B).

The proposed realignment arises following the identification of an existing high-pressure Irish Water main within the L2473 Shannonpark Road. The alteration is intended to avoid interaction with Uisce Éireann infrastructure and to remove the need for works within the public road corridor at this location.

The proposed alteration to the scheme includes the following:

- Under the proposed alteration, the underground cable will leave the Shannonpark road, passing through an existing entrance onto consented third-party lands (Folio no. CK77185F) for approximately 370m before joining existing ducting at the M28 crossing in the east (as per the permitted SID route). The proposed works include the

relocation of one joint bay (Joint Bay 06) from the public road corridor to the consented third-party lands.

- A corridor of c. 5-10m in width will be required to accommodate the cable trenching works and installation of the joint bay. The underground cable works will consist of the installation of 6 No. ducts in an excavated trench to accommodate 3 No. power cables, 2 No. fibre communications cables and 1 No. earth continuity conductor. The altered grid route will be mainly through agricultural lands and will require removal of c. 100m of scrub in proximity to the M28 crossing.
- Once the cable trenching is complete the ground will be reinstated with an access track c. 3m in width. This is required as per Eirgrid specifications to permit future access to joint bay 06.

Details with regards to the method of construction for the permitted cable grid route and substation were provided in the Construction Methodology, prepared by the TLI Group (Report ref 05887-R04-01, June 2023). TLI have prepared an addendum report to accompany this alteration application. It is noted that there will be no changes to the methodology for constructing the cable or joint bay in the proposed offroad sections compared with that which was submitted as part of the permitted SID application.

No other alterations to the permitted grid connection route, the permitted substation at Ballinrea, or the connection works within the Raffeen 220kV Substation proposed as part of this Section 146B request. The proposed alteration is illustrated on Drawing Nos. 300101179-DR-802 and 300101179-DR-803.

2.3 Need for Alteration

The proposed alteration to the permitted development is required to avoid interaction with existing Uisce Éireann infrastructure located within the public road corridor along the Shannonpark Road (L-2473). Detailed design development and engagement with Uisce Éireann during 2025 have confirmed the presence of two existing high-pressure asbestos cement watermain running parallel to the consented 110kV cable route (ABP Ref. ABP-317706-23).

It has been established that installation of the permitted 110kV cable within the public road corridor would necessitate the complete replacement of approximately 870m of these critical water services to achieve the required safety clearances. Such replacement would require the removal of asbestos-containing materials and their replacement with ductile iron or HDPE pipework due to the age-related embrittlement and rupture risk associated with the existing services.

To avoid these significant and high-risk replacement works, it is proposed to locally realign approximately 370m of the underground cable route northwards, outside of the public road and into adjoining consented third-party lands (Folio No. CK77185F), before re-joining the permitted alignment.

at the M38 crossing in accordance with the permitted Strategic Infrastructure Development route (ABP Ref. ABP-317706-23). The proposed alteration also includes the relocation of one joint bay (Joint Bay 06) to within the third-party lands, as shown on the Drawing no. 300101179-DR-801B.

The alteration represents a necessary technical refinement arising from detailed design and statutory utility engagement (see letter from Uisce Éireann enclosed with this planning application). It is localised and minor in extent and does not give rise to any materially different environmental or planning impacts to those previously assessed, as demonstrated in Section 5 of this report.

3. Site Context & Planning History

3.1 Site Context

The proposed alteration to the grid connection route, as described in Section 2, is limited to a localised section of the permitted underground cable route located within the townland of Shannonpark, Co. Cork, approximately 2.3 km north of Carrigaline and approximately 15 km southwest of Cork City.

The section of the permitted grid connection route which is the subject of this proposed alteration is located along the Shannonpark Road (L-2473), between the N28/Shannonpark Roundabout and Ballinrea Cross. The L-2473 is a rural local road comprising a single carriageway accommodating two-way traffic and is generally bounded by mature hedgerows and established trees along both sides. The public road corridor along this section also accommodates existing Uisce Éireann infrastructure which is discussed further in section 2.3.

The lands adjacent to the road are characterised primarily by agricultural fields, with a small cluster of residential properties located to the south-east of the proposed alteration area.



Figure 3.1: Site Context Map showing the approximate section of the grid connection amendment (orange) within the surrounding agricultural lands and the permitted grid alignment along the public road corridor (blue).

3.2 Planning History

A desktop review of Cork County Council and An Coimisiún Pleanála's online planning registers indicates that there is no planning history associated with the agricultural lands where the grid connection realignment (approx. 370m) is proposed.

The proposed alteration forms part of a wider permitted development that is discussed in Section 2.1 above.

4. Planning Policy Context

4.1 RED II & III Directives

The Renewable Energy Directive (Directive (EU) 2018/2001) (RED II) entered into force in 2018 as part of the 'Clean energy for all Europeans' package aimed at maintaining the EU's status as a global leader in renewables and, more broadly, helping it to meet its emissions reduction commitments under the Paris Agreement. It was subsequently amended by Directive (EU) 2023/2413 (RED III) in 2023 which set an overall binding EU-wide target of at least 42.5% renewable energy consumption by 2030, but with an aspirational goal of 45%.

The Renewable Energy Directive III (RED III) seeks to reform permit-granting procedures for renewable energy projects across EU Member States. The Directive requires Member States to streamline and accelerate permitting processes for the construction, repowering, and operation of renewable energy infrastructure by introducing maximum timelines for decision-making, depending on the project's type, scale, and location.

The mechanisms introduced under RED III aim to simplify administrative procedures and facilitate the timely delivery of renewable energy generation and associated infrastructure, reflecting the wider EU policy commitment to accelerating the energy transition. In this context, minor alterations—such as the proposed alteration which is the subject of this Section 146B application—are consistent with the objectives of RED III, which encourages simplified and expedited permitting processes for renewable energy developments

4.2 Revised National Planning Framework 2025

The National Planning Framework (NPF) is a high-level strategic plan to shape the future growth and development of the country to 2040. It is focused on delivering 10 National Strategic Outcomes (NSOs). In the first revision of the NPF, published in 2025 (NPF 2025), National Strategic Outcome 8 focuses on the 'Transition to a Low Carbon and Climate Resilient Society' and recognises the need to harness both on-shore and off-shore potential from energy sources including solar and deliver 51% of our electricity needs to be from renewable sources by 2050.

Furthermore, NSO 8 aims to reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres. It is stated in the NPF 2025 that:

“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.”

Section 5.4, 'Planning and Investment to Support Rural Job Creation', notes that 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.

It is a National Policy Objective (NPO 70) to 'Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a climate neutral economy by 2025.'

It is a National Policy Objective (NPO 71) to 'Support the development and upgrading of the national electricity grid infrastructure, including supporting the delivery of renewable electricity generating development.'

Section 9.1 'Climate and Environmental Capacity' notes that

'In catering for an additional one million people and a move towards renewable energy sources, increased demand for land is likely to include the identification of suitable locations for renewable energy and associated grid connections [...] It is important that synergies between utilities and infrastructure delivery partners are explored and that the environmental capacity of the receiving environment is considered.'

4.3 Regional Spatial Economic Strategy for the Southern Region 2020

The RSES for the Southern Region seeks to achieve balanced regional development and full implementation of Project Ireland 2040 – The National Planning Framework. The RSES provides a regional policy position for the consideration of renewable energy in land-use planning. Chapter 5 of the RSES deals with Environment focusing on Regional Strategic Outcome of a low carbon climate resilient and sustainable society.

The following Regional Policy Objectives are of relevance to the proposal:

RPO 96 – Integrating Renewable Energy Sources

It is an objective to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure to integrate a renewable energy source and ensure our national and regional energy system remains safe, secure and ready to meet increased demand as the regional economy grows.

RPO 100 – Indigenous Renewable Energy Production and Grid Injection

It is an objective to support the integration of indigenous renewable energy production and grid injection.

RPO 219 – New Energy Infrastructure

It is an objective to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers (subject to appropriate environmental assessment and the planning process) to ensure the energy needs of future population and economic expansion within designated growth areas and across the Region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs

RPO 220 – Integrated Single Electricity Market (I-SEM)

It is an objective to support the Integrated Single Electricity Market (I-SEM) as a key priority for the Region and seeks the sustainable development and reinforcement of the energy grid including grid connections, transboundary networks into and through the Region and between all adjacent Regions subject to appropriate environmental assessment and planning processes.

RPO 222 – Electricity Infrastructure

It is an objective to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid's (2017) Grid Development Strategy (subject to appropriate environmental assessment and the planning process) to serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity

4.4 Cork County Development Plan 2022-2028

Cork County Development Plan 2022-2028 (CCDP) recognises that the provision of a secure and reliable electricity transmission infrastructure and transmission grid is essential to meet the growth in demand for electricity and to ensure that a reliable electricity supply is available, noting that the electrical grid and substation network will be instrumental in supporting the development of the renewable energy industry in the country.

County Development Plan Objective ET 13-21: Electricity Network

- a) Support and facilitate the sustainable development, upgrade and expansion of the electricity transmission grid, storage, and distribution network infrastructure.*
- b) Support the sustainable development of the grid including strategic energy corridors and distribution networks in the region to international standards.*
- c) Facilitate where practical and feasible, infrastructure connections to wind farms, solar farms, and other renewable*

energy sources subject to normal proper planning considerations.

d) Proposals for development which would be likely to have a significant effect on nature conservation-sites and/or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected

The CCDP acknowledges that a radical transformation of our energy system is required to meet National, European and International climate change policy objectives.

The following policy objectives demonstrate the Council's commitment to contributing to the achievement of national energy targets through renewable energy sources.

ET 13-1 Energy:

a) Ensure that County Cork fulfils its potential in contributing to the sustainable delivery of a diverse and secure energy supply and to harness the potential of the county to assist in meeting renewable energy targets and managing overall energy demand.

ET 13-2 Renewable Energy:

a) Support Ireland's renewable energy commitments as outlined in Government Energy and Climate Change policies by facilitating the development of renewable energy sources such as wind, solar, geothermal, hydro and bio-energy and energy storage at suitable locations within the county where such development has satisfactorily demonstrated that it will not have adverse impacts on the surrounding environment (including water quality), landscape, biodiversity or amenities.

In terms of the Zoning designations the site is located within the "Metropolitan Green Belt" defined as a rural area under strong urban influence within close commuting distance of Cork City. The Plan notes that the principles underlying the designation of the greenbelts around the county towns are:

- Strategic Protection of land that may be required for development in the future;
- Retention of land in agriculture, forestry or other uses which would otherwise be susceptible to inappropriate development.

The following objectives and policies are relevant to the subject site:

RP 5-12: Purpose of Greenbelt

(a) Maintain a Green Belt for Metropolitan Cork with the purposes of retaining the open and rural character of lands

between and adjacent to urban areas, maintaining the clear distinction between urban areas and the countryside, to prevent urban sprawl and the coalescence of built-up areas, to focus attention on lands within settlements which are zoned for development and provide for appropriate land uses that protect the physical and visual amenity of the area....

RP 5-13: Land Uses within the County Metropolitan Greenbelt

Preserve the character of the Metropolitan Greenbelt as established in this Plan and to reserve generally for use as agriculture, open space, recreation uses and protection / enhancement of biodiversity of those lands that lie within it.

RP 5-17: Strategic and Exceptional Development

Recognise that there may be development of a strategic and exceptional nature that may not be suitably located within zoned lands and that such development may be accommodated successfully in Greenbelt locations. In such circumstances, the impact on the specific functions and open character of the Greenbelt should be minimised.

RP 5-19: Greenbelts around Settlements

(a) Retain the identity of towns, to prevent sprawl, and to ensure a distinction in character between built up areas and the open countryside by maintaining a Greenbelt around all individual towns.

(b) Reserve generally for use as agriculture, open space or recreation uses those lands that lie in the immediate surroundings of towns. Where Natura 2000 sites, Natural Heritage Areas, proposed Natural Heritage Areas and other areas of biodiversity value occur within Greenbelts, these shall be reserved for uses compatible with their nature conservation designation and biodiversity value...

5. Planning Assessment

5.1 Principle of Proposed Development

The proposed development site is located on lands zoned 'Metropolitan Green Belt' in the Cork County Development Plan 2022-2028 (CDP). This designation forms part of the rural housing policy which intends to protect the setting of the City and the Metropolitan Towns from urban generated housing pressure. Section 5.5.8 of the CDP clarifies that the overall objective for Greenbelt lands is to *"reserve them generally for use as agriculture, open space and recreation"*. Policy objective RP 5-17: Strategic and Exceptional Development provides that development of a strategic nature is permissible in principle on greenbelt zoned lands provided the impact is minimised. The proposed alteration subject of this Section 146B request seeks for the proposed realignment of a permitted grid connection route from the public road corridor to the adjacent greenfield agricultural lands. The cable will be located underground and is compatible with the continued use of the lands for open space and agriculture. The proposal represents a minor amendment to a strategic piece of infrastructure that is required to minimise disruption to existing Uisce Éireann assets in the public road and as such it is considered that the proposal is in accordance with the Metropolitan Greenbelt Designation and Policy Objective 5-17.

Furthermore, and as outlined in section 4 above, the key strategic policies and objectives set out at national, regional and local levels support and require investment in Ireland's grid as a key driver to enable the realisation or a shift to increased energy efficiency and indigenous renewable energy systems. Renewable energy development in rural areas is strongly supported 'in principle' at National, Regional and Local policy levels, with collective support across government sectors for a move to a low carbon future and a faster and simplified permitted process for the same is required under RED III.

National Policy objective 70 of the National Planning Framework (NPF) 2025 is to promote renewable energy use and generation at appropriate locations within the built and natural environment. It is also an objective of the NPF under National Strategic Outcome 8 to reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres. At a local level the Cork County Development Plan 2022-2028 seeks to support the sustainable development of renewable energy sources. It is an objective under ET 13-21 Electricity Network to

....c) facilitate where practical and feasible, infrastructure connections to windfarms, solar farms and other renewable energy sources subject to normal proper planning considerations.

The proposed alteration is intended to facilitate the connection of the permitted Ballinrea Solar farm and permitted Ballinvuskig Solar Farm to the

national grid and to minimise disruption to existing key strategic assets. It is considered that the principle of the proposed alteration is consistent with the permitted development under ABP-317706-23 and the national, regional and local policies which support investment and sustainable development of the transmission network. An assessment of the alteration against the key planning considerations identified for the permitted SID are discussed further in section 5.3 below.

5.2 Materiality of the Change Proposed

Section 146B of the Planning and Development Acts 2000 (as amended) requires An Coimisiún Pleanála to determine whether the proposed alteration would constitute the making of a material alteration to the terms of the permitted development. In this case, the proposed alteration relates to a localised realignment of approximately 370 metres of a previously permitted 6.65km underground grid connection, arising from the identification of existing Uisce Éireann infrastructure within the public road corridor. In order to safeguard this strategic asset significant additional mitigation measures and an extension to the overall construction timeframe for the permitted grid connection route would be required. The alteration does not alter the nature, scale, purpose, or operational characteristics of the permitted development, which remains an underground 110kV grid connection linking the Ballinrea substation to the Raffeen 220kV substation.

There has been no substantive change in national, regional, or local planning policy, nor any change in zoning or the receiving environment, since the grant of permission under Planning Ref. ABP-317706-23. The lands through which the amended route passes comprise agricultural lands of a similar character and sensitivity to those assessed as part of the permitted development.

As set out in the sections that follow, the proposed alteration does not give rise to any new or materially different impacts in respect of landscape and visual amenity, ecology, Appropriate Assessment, residential amenity, traffic, water, archaeology, or noise when compared to those assessed under the permitted development. In certain respects, including traffic and construction impacts, the alteration results in a reduction in potential effects relative to the consented scheme.

Having regard to the limited extent and localised nature of the proposed alteration, its wholly underground character, and the conclusions of the detailed assessments accompanying this application, it is considered that the proposed change does not constitute a material alteration to the terms of the permitted development.

A review of recent Section 146B decisions by An Coimisiún Pleanála demonstrates a consistent approach to the assessment of alterations to permitted Strategic Infrastructure Developments (SID), particularly in respect of underground grid connections and associated infrastructure. Across the precedent cases reviewed, the Commission and Inspectors have consistently assessed proposed alterations by reference to the conclusions of the original SID assessment, with a focus on whether the alterations would give rise to

any new or materially different planning, environmental, or policy considerations beyond those previously assessed.

In cases involving the localised realignment of underground grid connections, including ABP-315002-22 (Drumlins Park Ltd.) and ABP-319548-24 (Hazelboro Ltd.), the Inspectors concluded that the proposed alterations did not constitute material alterations where the works were limited in extent, largely subterranean, and did not result in any new or intensified impacts in respect of landscape and visual amenity, ecology, archaeology, traffic, hydrology, or European sites.

Having regard to the above precedent, the proposed alteration of a localised section of the permitted grid connection route is assessed in section 5.3 in the context of the findings and conclusions of the original permitted SID development and concludes that the proposed alteration will not give rise to any significant additional or intensified impacts beyond what was previously assessed and as such constitutes a non-material alteration to the permitted development.

5.3 Assessment of Alteration

Under the permitted development (ABP-317706-23), the Inspector identified the following as the key considerations arising in the planning assessment:

- Principle of Development and Planning Policy
- Landscape and Visual Impact
- Impacts on biodiversity.
- Impact on residential and other amenities
- Traffic and road safety impacts
- Water
- Archaeology and Cultural Heritage
- Other Issues
- Appropriate Assessment

Section 5.3.1 below provides an overview of the determination made by the Inspector under each of the headings where it related to the grid connection works proposed and an assessment of the effects arising from the proposed alteration subject of this section 146B planning application.

5.3.1 Landscape and Visual Impact Assessment

Permitted Development (ABP-317706-23)

In assessing landscape character, the Inspector noted that the site is located within Landscape Character Type LCT06a *"Broad Fertile Lowland Valleys"*, which is identified in the CDP as having high landscape sensitivity, high landscape value, and landscape importance at County level.

The Landscape and Visual Impact Assessment prepared by Macroworks concluded that, within the study area, there are no particularly distinctive or rare landscape elements, and that the site is situated within a robust but diverse landscape at the interface of multiple landscape types. While the area is distinctively rural in character, it was described as an atypical peri-urban working landscape, influenced by a range of anthropogenic land uses typical of the outskirts of a major settlement. The Inspector considered this to be an

accurate description of the site context and concluded that the landscape context presents a strong capacity to absorb development.

The assessment of visual impacts undertaken in respect of the permitted development concluded that the proposed grid connection works would give rise to minor, temporary landscape and visual effects during the construction phase only, which would cease once the development becomes operational. The assessment further concluded that the operational phase would result in imperceptible visual effects, as assessed from the identified viewpoint locations. On this basis, the Inspector concluded that the proposed development would not give rise to any significant visual impacts.

Assessment of Proposed Alterations

The Landscape and Visual Impact Assessment Technical Note prepared by Macro Works in respect of the proposed alteration confirms that the conclusions reached under the permitted development remain unchanged.

As previously assessed, the underground grid connection is not a significant source of landscape or visual effects, with any effects limited to minor, temporary construction-phase impacts only, which cease once the development becomes operational due to the underground nature of the works. The proposed alteration involves the localised realignment of approximately 370 metres of the consented underground cable route from the public road corridor into adjoining third-party lands. The nature, scale, and extent of the works remain comparable to those already assessed, and any construction-phase landscape and visual effects remain localised and temporary. The realigned route is located behind an existing roadside hedgerow and is therefore likely to be no more visually apparent, and better screened, than the consented alignment within the public road.

Accordingly, the proposed alteration does not give rise to any additional or materially different landscape or visual effects. The conclusions of the Landscape and Visual Impact Assessment submitted and assessed as part of the permitted development remain unchanged, and no significant landscape or visual impacts are anticipated.

5.3.2 Impact on Biodiversity

Permitted Development (ABP-317706-23)

In assessing impacts on biodiversity, the inspector noted that the development would occur largely within managed agricultural lands and areas of existing infrastructure, and that no protected or rare species were identified within the development site. Having regard to the ecological value of the habitats present and the mitigation measures proposed, the Inspector concluded that, subject to conditions, the permitted development would not have any significant effect on the overall ecology or general biodiversity of the area, either alone or in combination with other plans or projects.

Assessment of Proposed Alterations

The Ecological Impact Assessment (EclA) prepared by MKO notes that the amended section of the grid connection route traverses predominantly

agricultural lands, comprising improved agricultural grassland and areas of dry meadows and grassy verges with scrub, bounded by hedgerows, treelines, and scrub along sections of the route. These habitats are of local ecological importance, with hedgerows and treelines providing foraging and movement corridors for fauna in the wider landscape.

A small, unmapped watercourse, classified as an upland eroding stream, was recorded within the site. The EclA confirms that the watercourse has no fisheries value and does not provide supporting habitat for otter. No Annex I habitats, Annex II species, Annex I bird species, protected flora, or invasive alien species were recorded within the proposed amended grid connection route corridor.

The EclA identifies that, on a precautionary basis, there is potential for construction-phase impacts on the unmapped watercourse and on nesting birds and opportunistic bats, primarily in the absence of mitigation. However, the report confirms that the potential residual impacts on ecological receptors will not be significant and no potential for the Proposed Development to contribute to any cumulative impacts on biodiversity when considered in-combination with other plans and projects was identified.

The proposed grid connection will be laid underground and will not require operational maintenance. An unsealed access track will be reinstated above the cable route in accordance with EirGrid requirements, with no resulting impacts on surface water runoff. Accordingly, the EclA concludes that no operational-phase ecological impacts are anticipated.

Overall, the EclA concludes that the proposed alteration will not result in the loss of habitats or species of high ecological value, will not give rise to significant residual effects, and will not contribute to significant cumulative impacts on biodiversity.

5.3.3 Impact on Residential and Other Amenity

Permitted Development (ABP-317706-23)

In assessing impacts on residential and other amenities, the Inspector's consideration focused primarily on the substation element of the permitted development, having regard to its proximity to nearby residential properties and its potential to give rise to operational and construction-related disturbance. The Inspector concluded that, subject to conditions, the permitted development would not result in any significant adverse impacts on residential or other amenities.

No residential amenity concerns arose in respect of the underground grid connection under the permitted development, having regard to the temporary and localised nature of the cable-laying works.

Assessment of Proposed Alterations

The proposed alteration relates solely to a localised realignment of a short section of the underground grid connection and does not alter the location, nature, or operation of the permitted substation or any other noise-

generating infrastructure. No residential amenity concerns arose in respect of the underground grid connection under the permitted development.

The alteration does not bring development closer to residential receptors and does not give rise to any new or materially different sources of noise, dust, traffic, or disturbance beyond those previously assessed. The grid connection works remain temporary and localised in nature.

Accordingly, the proposed alteration does not alter the conclusions reached by the Inspector in respect of residential and other amenities, and no significant adverse impacts on residential amenity will arise.

5.3.4 Traffic and Road Safety Impacts

Permitted Development (ABP-317706-23)

In assessing impacts on traffic and road safety, the Inspector noted that the principal effects on traffic would arise during the construction phase, primarily due to increased construction traffic on the local road network.

Having regard to trench excavation works and the installation of the cable within the public road network, temporary road closures would be required, resulting in increased journey times, traffic diversions and associated disruption during the construction period.

The Inspector's Report concluded that, having regard to the mitigation measures set out in the Traffic and Transport Assessment prepared by Alan Lipscombe, Traffic and Transport Consultants, residual traffic impacts would be slight to medium in effect and would not give rise to a significant impact on the capacity of the surrounding road network.

Assessment of Proposed Alterations

The Traffic and Transportation Assessment (TTA) submitted in support of the permitted SID concluded that traffic impacts associated with construction of the underground grid connection would be temporary and slight in nature. While localised road closures and diversions are required during construction, the assessment found that any resulting increases in journey time and distance would be limited in duration and acceptable having regard to the temporary nature of the works.

The proposed alteration involves the relocation of approximately 370m of the grid connection route off the local road and onto private lands. As outlined in the TTA addendum prepared by Alan Lipscombe Traffic and Transport Consultants, this modification will reduce the duration of road closures by almost four days, thereby removing the need for a significant number of vehicles to undertake diversion routes during the construction phase.

Engagement has also been undertaken with the M28 Project Team and Cork County Council Roads Engineers in relation to the proposed amendment. Correspondence received confirms that no objections are raised to the proposed modification. Please refer to the correspondence from Cork County Council enclosed with this planning application.

Accordingly, the proposed alteration to the permitted underground grid connection will result in a reduction in overall traffic disruption when compared to the permitted scheme and does not give rise to any new or intensified traffic or transportation impacts.

5.3.5 Water Impacts

Permitted Development (ABP-317706-23)

In assessing impacts on water and water services, the Inspector concluded that the proposed development could be carried out without adverse impact on existing water services or infrastructure, subject to the implementation of standard best environmental practice measures during construction.

Assessment of Proposed Alterations

The proposed alteration arose from the identification of existing Uisce Éireann infrastructure within the public road corridor along the permitted cable route. In response, the alignment has been locally adjusted to avoid potential interaction with this infrastructure.

Uisce Éireann has confirmed that it is in favour of the proposed amendment, noting that the realignment reduces the potential for disruption to the local potable water supply network serving the greater Carrigaline area. Having regard to the limited and localised nature of the amendment, and the fact that the revised alignment avoids interaction with existing water services infrastructure, the proposed alteration is not anticipated to give rise to any significant impacts on water services infrastructure or the receiving environment (see letter from Uisce Éireann enclosed with this planning application).

5.3.6 Archaeology and Cultural Heritage Impacts

Permitted Development (ABP-317706-23)

In assessing archaeology and cultural heritage, the Inspector had regard to the submitted Archaeological and Cultural Heritage Assessment, the observations of the Development Applications Unit of the Department of Housing, Local Government and Heritage, and the applicant's response thereto. The Inspector concluded that, subject to the attachment of appropriate conditions, the proposed development could be carried out without giving rise to unacceptable impacts on archaeology or cultural heritage, with such impacts capable of being adequately mitigated through pre-development testing, monitoring, and agreed mitigation measures.

Assessment of Proposed Alterations

An addendum archaeological assessment has been undertaken in respect of the amended grid connection alignment. The assessment identifies that the proposed alteration has the potential to give rise to a direct effect on two recorded townland boundaries (CH104 and CH105). However, the report notes that these boundaries have already been partially disturbed by the modern road network.

The amended cable route will be located within third-party agricultural lands adjacent to the existing road corridor. At one location, the route will pass through an existing field entrance between hedgerows which form part of the townland boundary. The use of this existing entrance avoids the need to create a new break in the hedgerow and therefore minimises additional disturbance to the boundary feature.

Having regard to the existing level of disturbance in the area and the limited extent of works required, the addendum assessment concludes that the overall impact of the amended cable route on the townland boundaries will be slight. The report recommends that the mitigation measures outlined therein be implemented.

5.3.7 Noise Impact Assessment

Permitted Development (ABP-317706-23)

The noise assessment submitted with the permitted SID assessed operational noise from the proposed 110kV substation and construction-phase noise associated with the underground grid connection. The Inspector concluded that operational noise levels would be well below relevant limits at nearby residential properties and that construction noise impacts associated with the grid connection would be temporary, localised, and not significant.

Assessment of Proposed Alterations

The Noise Impact Assessment prepared by AONA Environmental identified six sensitive receiver locations in proximity to the 370m section of the grid route. Each noise sensitive receiver in close proximity to the proposed 370m section of the grid route was identified and assessed for construction phase noise impacts.

The construction noise assessment undertaken in respect of the proposed cable realignment concludes that construction activities associated with the amended grid connection are of short duration, with works at any one location lasting approximately five days and will not give rise to continuous noise exposure over a prolonged period. With the implementation of standard construction mitigation measures, residual construction noise impacts are assessed as not significant, and no additional noise mitigation measures are required for the proposed cable realignment.

5.3.8 Other Assessments

The Board considered a range of issues in granting the parent permission, including procedural matters, stakeholder consultation and the principle of development at this location. These matters are not affected by the proposed amendment

5.3.9 Appropriate Assessment

Permitted Development (ABP-317706-23)

In assessing the impacts on designated European Sites (Natura 2000 sites), the Inspector confirmed that the proposed development was screened for Appropriate Assessment, with the Cork Harbour SPA identified as the only

European site requiring further consideration due to potential hydrological pathways. A Natura Impact Statement (NIS) was prepared and assessed as part of the application.

Having regard to the mitigation measures proposed, the Inspector concluded that the development, alone or in combination with other plans or projects, would not adversely affect the integrity of any European site, including the Cork Harbour SPA, having regard to its conservation objectives. Accordingly, the Inspector was satisfied that the proposed development complied with the requirements of Article 6(3) of the Habitats Directive.

Assessment of Proposed Alterations

The potential for impact on European sites resulting from the proposed development has been fully assessed in the Appropriate Assessment Screening Report (AASR) prepared by MKO in support of the current application.

No pathway or mechanism for the development works to result in any significant effect on any European Site, was identified when considered on its own during the assessment process and therefore, there is no potential for it to contribute to any such effects when considered in-combination with any other development.

The AASR concludes as follows:

'It is concluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the Proposed Development, individually or in combination with other plans and projects, will not have a significant effect on any European Site.'

6. Summary and Conclusion

McCutcheon Halley Planning Consultants have prepared this Planning Statement in support of a request under Section 146B of the Planning and Development Act 2000 (as amended) to alter a permitted Strategic Infrastructure Development (SID) granted under Planning Ref. ABP-317706-23 for the Ballinrea 110kV substation and associated underground grid connection.

The proposed alteration relates to a localised realignment of approximately 370 metres of the previously permitted underground grid connection route along the Shannonpark Road (L-2473). The amendment arises from the identification of existing Uisce Éireann infrastructure within the public road corridor and seeks to relocate a short section of the cable route into adjoining third-party lands before re-joining the permitted grid connection route alignment. No alteration to the permitted substation, the connection works within the Raffeen 220kV Substation, or the overall function and purpose of the development are proposed.

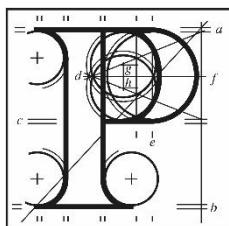
The proposed alteration has been assessed having regard to the findings and conclusions of the original SID permission (Pl. Ref. ABP-317706-23). The assessment demonstrates that the amendment is localised in extent, wholly underground in nature, and does not alter the scale, form, or operational characteristics of the permitted development.

As set out in Section 5 of this report, the proposed alteration does not give rise to any new or materially different planning, environmental, or policy considerations when compared with those assessed as part of the permitted development. The conclusions of the original Landscape and Visual Impact Assessment, Ecological Impact Assessment, Appropriate Assessment, Traffic and Transportation Assessment, Noise Assessment, and assessments of residential amenity, water, and cultural heritage remain unchanged. In certain respects, including traffic and construction impacts, the alteration results in a reduction in potential effects relative to the consented scheme.

Having regard to the limited and localised nature of the proposed alteration, the absence of any new or intensified impacts, and the consistency of the proposal with established Section 146B precedent, it is considered that the proposed alteration constitutes a non-material alteration to the terms of the permitted development.

Appendix A:

An Coimisiún Pleanála ABP-317706



An
Bord
Pleanála

Inspector's Report

ABP-317706-23

Development	Proposed development of a 110kV substation, grid connection and associated infrastructure.
Location	Ballinrea and adjacent townlands, Co. Cork.
Planning Authority	Cork County Council
Applicant(s)	Ballinrea Solar Farm Limited
Type of Application	Application for approval under the provisions of Section 182A of the Planning and Development Act 2000 as amended.
Prescribed Bodies	Transport Infrastructure Ireland Department of Housing Local Government and Heritage
Observer(s)	Thomas & Mary O Shea. Clare Kelly.
Date of Site Inspection	16 th November 2023
Inspector	Bríd Maxwell

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1.0 Introduction

- 1.1 Planning approval is sought under the provisions of section 182A of the Act for the development of a 110kV Substation and Grid Connection at Ballinrea Co Cork. The proposal is on the site of the permitted Ballinrea Solar Farm, Planning Ref 17/6784 ABP Ref 04.303013.
- 1.2 Four number submissions were received; two from prescribed bodies namely Transport Infrastructure Ireland and the Department of Housing Local Government and Heritage. Two no third party submissions from Clare Kelly and Thomas & Mary O Shea who object to the proposal. There are concurrent related applications currently before the relevant local authorities firstly on lands adjoining the subject site under Planning Ref 23/4563 and secondly within the townland of Ballyvustig, Douglas 23/41837 to the northwest. These applications which were lodged with Cork County Council and Cork City Council respectively and both were currently the subject of additional information requests on 22/05/2023 and 9/05/2023 respectively. (See planning history section 6.0 below for more detail).
- 1.3 Following pre-application consultation in respect of the development now proposed, the Board determined (ABP313613-22) 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.

2.0 Site Location and Description

- 2.1. The proposed substation site is located approximately 2.25km northwest of Carrigaline and circa 4.5km south east of Douglas and 8km south of Cork City Centre. The proposed substation site is located within the permitted Ballinrea solar farm site (46.92ha) along its eastern boundary and is accessed via the L2464 (Ballinrea Road). The site of the proposed substation is currently in agricultural use. Lands to the north, south and east are currently in agricultural use (predominantly tillage and improved grassland). As regards development in the vicinity there are a

number of one off housing dwellings as well as light industrial and commercial and community uses including auto mechanics, Ballinrea Business Park and Saint John's Cemetery.

- 2.2. The existing Raffeen 220kV substation is located circa 1.5km northeast of Carrigaline adjoining agricultural lands also with a number of commercial, industrial and civic infrastructural uses in the vicinity.
- 2.3. In terms of land ownership the application site includes private lands and public roadways and also involves lands recently cleared for the construction of the M28 motorway.
- 2.4. The grid connection route interfaces at a number of locations points with the M28 motorway route. The M28 motorway project connects the N40 South Ring road to the Port of Cork in Ringaskiddy and is a high volume route for passenger and freight. The route was approved by An Bord Pleanála in June 2018. Advance works are currently underway on the route consisting of enabling works, site clearance, fencing, archaeological investigations, utility diversions, site investigations and environmental works. I note current indications are that construction works will commence in early 2025.

3.0 Proposed Development

- 3.1. The proposed development involves three main elements namely the proposed 110kV substation, the underground grid connection and the connection to Raffeen substation. The detail of the main elements are set out as follows:
 - The construction of a permanent 110kV electrical substation in the townland of Ballinrea at the site of the permitted Ballinrea Solar Farm (Ref 17/6784 ABP Ref PL04.303013). The proposed 110kV electrical substation includes 2 no single storey control buildings with welfare facilities, electrical plant and apparatus, security fencing, entrance gate, fire wall, 4 no lighting columns, 1 no telecoms pole (c 20.7m above ground), 7 no lightning masts (c 18m above ground), underground cabling, wastewater holding tank, watermains connection, site drainage and all ancillary works.

- 1 no temporary construction compound with temporary site offices and staff facilities, in the townland of Ballinrea;
- Realignment of the permitted internal access track permitted under PL Ref 17/6784, ABP Ref PL04.303013 and the provision of a new internal cable maintenance track.
- Temporary alterations to the site entrance for construction phase and reinstatement of same post construction;
- 110kV tail fed underground electricity interconnection cabling c6.65km in length and associated fibre cabling connecting the proposed 110kV Substation at Ballinrea to the existing 220kV Raffeen Substation with underground ducting, 9 no joint bays, communication chambers and associated site development and reinstatement works;
- A new 110kV cable bay, electrical equipment, the provision of a new cable maintenance track and ancillary works at the existing 220kV Raffeen substation compound; and
- All associated site development works, landscaping, and apparatus.

3.2 The development subject of this application forms part of grid connection and access arrangements which will facilitate the connection of the permitted Ballinrea Solar Farm (Cork County Council PI Ref 17/6784, ABP Ref PL04.303013) and the permitted Ballinvuskig Solar Farm (Cork County Council PL Ref 19/5371, ABP Ref PL04-305186) to the national grid. The grid connection route is located within roadside verges and on agricultural lands.

3.3 A Natura Impact Statement has been prepared in respect of the proposed development and accompanies the planning application.

3.4 The proposed 110kV substation has been designed in accordance with EirGrid's functional specifications for 110kV substations and comprises of a single bay extendable tail-fed type C substation, 1 no EirGrid control building, 1 no IPP

Customer Control building and the electrical components necessary to transmit the electrical energy generated to the national grid. Lighting protection, perimeter fencing security lighting drainage infrastructure and a temporary construction compound are also provided.

- 3.5 The proposed grid connection comprises a 110kV tail fed underground electricity interconnector cables of circa 6.65km in length to be provided in predominantly excavated trenches and include associated fibre cable, underground ducting, 9 no joint bay, communication chambers and all associated site development and reinstatement works.
- 3.6 As regards the intended development timeframe application documentation including the Construction Methodology estimates that the overall construction timeframe for the development will run for approximately 14 months. The proposed underground cable has an estimated construction timeframe of approximately 8 months and will run concurrently with the construction of the proposed 110kV substation. Commissioning is expected to take approximately 6 weeks.

4.0 Documentation Submitted with the Planning Application.

4.1. The application is accompanied by the following documentation:

- Planning application form.
- Site Notice
- Newspaper notices.
- Covering Letter.
- Drawings.
- Letters of consent on landowners affected by the proposal.
- Notification letters issued to prescribed bodies.

4.2 The following reports accompany the application:

- Planning and Environmental Report
- Construction and Environmental Management Plan
- Ecological Impact Assessment
- Natura Impact Statement
- Environmental Impact Assessment Screening Report
- Outline Construction Methodology
- Landscape Mitigation Plan
- Noise Impact Assessment
- Planning Environmental Considerations Report – Archaeological and Cultural Heritage
- Traffic and Transportation Assessment.

4.2.1 The **Planning and Environmental Report** sets out the details of the site, the project background and planning history, consultations, details of the proposed development, the policy context and reviews the environmental and technical assessments carried out in respect of the proposal. The report notes that the development of transmission infrastructure such as the proposed 110kV substation and grid connection has a new emerging role in Ireland's renewables sector and will assist in responding to the need for a radical change in Ireland's energy provision. The report concludes that renewable energy infrastructure such as that proposed plays a critical role in supporting a pathway to a cleaner, more resilient and sustainable energy system in line with all levels of policy relating to renewable energy, climate action and energy security.

4.2.2 **Construction and Environmental Management Plan.**

The CEMP document addresses the proposed works and sets out the environmental management framework to be adhered to during the pre-commencement and construction phases of the development and incorporates the mitigation principles with respect to environmental impacts and commitments as set out in the application

for development. The report sets out the construction methodology in terms of each main construction component. Environmental Management proposals are set out with details provided in relation to

- Protecting Water Quality
- Drainage
- Pollution prevention measures
- Refuelling Fuel and Hazardous Materials Storage
- Cement based products control measures.
- Dust Control
- Noise Control
- Traffic Management
- Invasive Species Management
- Construction Waste Management.
- Environmental Management Implementation roles and responsibilities
- Emergency Response
- Mitigation Proposals
- Programme of Works
- Details of Compliance and Review.

4.2.3 Outline Construction Methodology

This report sets out the construction techniques and methodologies to be implemented with regard to the proposed substation build and underground cable construction including trenching methodology, ducting installation methodology, surface cable markers and marker posts, management of excess material from trench, storage of plant and machinery, watercourse damming and reinstatement, joint bays and associated chambers, joint bay construction and cable installation and future M28 Motorway crossing. Other issues addressed include traffic management, reinstatement of private land, implementation of environmental protection measures

including specific stream crossing protection measures, horizontal directional drilling, invasive species best practice measures and waste management. Estimates of construction duration for a total of 14 months. (110kV station 14months, 110kV cable 8 months and 6 weeks commissioning - concurrent)

4.2.4 Drainage and Services Design Report

This report summarises the water supply, foul water design and stormwater design for the proposed development. A connection to public water services is proposed and pre connection enquiry was lodged with Uisce Eireann. (formerly Irish Water). Foul water is proposed for discharge to on site holding tanks. Storm water is proposed for discharge to groundwater via stormwater infiltration pits. A hydrocarbon interceptor will service all stormwater runoff. Infiltration tanks are incorporated to meet the attenuation requirements for the project. Rainwater harvesting tanks are proposed for non-potable water.

4.2.5 Traffic and Transport Assessment

The report sets out a review of the delivery route to and from the proposed substation site and the proposed grid connection route including traffic counts undertaken in May 2023. Traffic generation during construction and operational phase and an assessment of the likely significant impacts and associated mitigation during construction and operation. The construction of the grid cable route will require localised road closures at the point of construction at all locations along the route with the exception of short sections on the N28 which will accommodate two way traffic and construction of the grid cable connection. Diversion routes are identified and mitigation measures outlined. During construction it is asserted that traffic related impacts will be temporary and slight.

4.2.6 Planning Environmental Considerations Report - Archaeology and Cultural Heritage.

The report sets out to assess the importance and sensitivity of the known and potential archaeology architectural and cultural heritage environment. The

assessment identifies 112 sites of archaeological and/or cultural heritage significance within the defined study areas. A geophysical survey also identified 10 areas of archaeological potential. A direct impact will occur on 10 cultural heritage sites including three previous excavations, five townland boundaries and two areas of archaeological potential. It is noted that the three previous excavations have been resolved as part of the M28 Archaeological service contract and no further mitigation is recommended. Townland boundaries are at locations where the pipe trench is to be excavated along existing road and no further mitigation is recommended. An indirect impact on three RMP sites is predicted as the development traverses their zone of notification. Mitigation measures are set out including archaeological test trenching of footprint of the substation and archaeological monitoring of the cable route. Strategy to be devised in conjunction with County Archaeologist and National Monuments Service regarding preservation in situ where possible.

4.2.7 Assessment of potential noise impact

The report sets out an assessment of the potential noise impact from construction and operation of the solar farm 110kv substation and grid connection. It sets out the relevant guidelines and standards and assesses the existing baseline and predicted noise levels. It is outlined that the predicted noise levels due to the substation are well below daytime and night time noise limits set out in relevant guidelines at nearest residential properties. It is predicted that the solar farm substation will not result in low frequency noise disturbance at the nearest residential properties. Low frequency noise levels from the substation will be inaudible at the nearest residential properties. There will be no change in noise emissions from the Raffeen 220kV substation. There will be no significant construction noise impact. The assessment concludes that the construction and operation of the proposed Ballinrea solar farm substation will not cause an adverse noise impact at the nearest residential properties.

4.2.8 Landscape and visual impact assessment.

Sets out a review of the landscape context the landscape character. An assessment of the significance of landscape impact of the development as a function of

landscape sensitivity weighed against the magnitude of landscape impact and an assessment of the significance of visual impact as a function of visual receptor sensitivity which is supported by photomontages in respect of selected viewpoints. Mitigation measures are outlined and an estimation of residual impacts. The report concludes that in terms of landscape impacts the substation will read as a minor ancillary development within the overall context of the consented solar development but one that does not noticeably alter the effects on landscape character. Grid connection works will result in minor construction stage landscape and visual effects which will cease once operational. An imperceptible significance of visual effects is noted in terms of 12 viewpoint locations. On the basis of the assessment it is concluded that there will not be any significant impacts arising from the proposed development.

4.2.9 Flood Risk Assessment

This report notes no reference to flooding history in the vicinity of the proposed development in cartographic sources and the site is entirely within flood zone C. Drainage design will mitigate any risk of site runoff impacting local flood risk.

4.2.10 EIA Screening Report.

The report sets out the legislative context and relevant project types prescribed for EIA purposes in Schedule 5 of the Planning and Development Regulations. It notes the substation does not produce electricity and therefore does not trigger a requirement for mandatory EIA in terms of Class 3(a) “Industrial installations for the production of electricity, steam and hot water not included in Part 1 of this Schedule with a heat output of 300megawatts or more”.

Regarding the proposed 6.65km grid connection from the proposed 110kV electrical substation at Ballinrea to the Raffeen 220kV Substation to the southeast -

The development is considered in the context of class 3(b) of Part 2 of Schedule 5 *“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.”

The proposed 6.65km grid connection will consist of cabling located underground and the voltage will be 110kilovolts therefore is not subject to EIA.

Notwithstanding that the proposed development is not a production source of electricity and there will be no overhead cables as part of the development the screening report nevertheless provides information through an evaluation of Schedule 7 criteria under Class 15 of Part 3 of Schedule 5. “Any sub-threshold project in Schedule 5 Part 2 which would be likely to have significant effects on the environment.” The Schedule 7A criteria assessment concludes that there will be no significant effects on the environment arising from the proposed development.

4.2.11 Ecological Impact Assessment

This report sets out the details of the proposed development, the construction methodologies and best practice measures proposed. The methodology sets out the field surveys including ecological walkover surveys to inform the methodology for assessment of impact and effects the ecological receptors, characterisation of impacts and effects and determination of the significance of effects. The EcIA sets out a description of all aspects of the development during construction operation and decommissioning.

The report concludes that following consideration of the residual effects the proposed development will not result in any significant effects on the biodiversity, flora and fauna of the existing environment. The residual impacts on ecological receptors will not be significant and no potential for the proposed development to contribute to any cumulative impacts on biodiversity when considered in combination with other plans and projects was identified. Where ecologically significant effects are identified measures are prescribed to avoid or minimise or compensate for such effects.

4.2.12 The Natura Impact Statement

The Stage 1 Screening report describes the Natura Sites within the likely zone of impact and seeks to establish the European Sites on which there is a potential for a likely significant effect using the source pathway receptor model . The Great Island Channel SAC (Site Code 001058) was screened out from further assessment on the basis of absence of pathway for effect. In relation to the Cork Harbour SPA (Site Code 004030) it cannot be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites that the proposed development, individually or in combination with other plans and projects has the potential to have a significant effect. The NIS sets out the detailed consideration of the potential for likely significant effects on the Cork Harbour SPA and associated mitigation during all stages of the development. An assessment of residual adverse effects on relevant SCIs concludes that there is no potential for adverse effects. The potential for cumulative and/ or in combination effects is reviewed and no residual cumulative impacts are identified with regard to any European site.

5.0 Consultations

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

Minister for Housing, Planning and Local Government

Minister for the Environment, Climate and Communications

Cork County Council

Transport Infrastructure Ireland

An Taisce

Heritage Council

Commission for Regulation of Utilities, Water and Energy

Fáilte Ireland

Responses were received from the Department of Housing, Local Government and Heritage and Transport Infrastructure Ireland which are summarised below:

5.2 Submissions:

5.2.1 Prescribed Bodies

Submission from the Development Applications Unit, Department of Housing Local Government and Heritage in relation to the Heritage aspects of the development. Noting the desk based archaeological impact assessment by Rubicon Heritage Services Ltd. the Department is broadly in agreement with the findings in relation to cultural heritage. It is recommended that conditions apply including in respect of pre development testing of areas of proposed ground disturbance within the greenfield portion of the scheme, an archaeological impact statement and mitigation strategy, the establishment of exclusion zones around external most elements of vulnerable heritage assets. CEMP to include location of archaeological and cultural heritage constraints.

5.2.2 Transport Infrastructure Ireland

Documentation requires revision to demonstrate compliance with the provisions of official policy related to existing and permitted schemes as it relates to national roads. It is expected that the M28 scheme will commence works in early 2025, subject to funding availability, public spending code and cabinet approval as well as the outcomes of procurement. National road network assets with respect to strategic traffic on the existing N28 and future M28 Cork to Ringaskiddy Project motorway scheme need to be protected and maintained. Ringaskiddy Port via the N/M28 form part of the EU Ten-T Core network and is crucial as a land transport connection to the major port for overall international competitiveness. Appropriate measures need to be put in place to protect the existing and proposed national road assets.

Measures to be used will depend on the timing and delivery of this proposal itself and also the status of the M28 at that time. Appropriate actions and mitigation measures should be identified to ensure national road assets are in place with regard to existing and proposed M28 for all eventualities. No evidence that the applicant has addressed or prepared appropriate plans details or mitigations with respect to the existing N28 nor the phasing of the proposed development in the event of delay to the M28 scheme. Proposals to lay cable within road reservations have the potential to impact road authorities and TII in undertaking future

maintenance and undermine potential for improvement works along sections of this critical road. There may be additional cost implications resulting from the presence of high voltage cabling within road reservations. These concerns don't appear to have been factored into consideration of alternative routes. A number of further considerations:

- HV ducting to be designed and positioned to minimise potential impact on construction and operational phases of the national road.
- DOI crossings with launch and reception pits located outside the extent of road reservations.
- It is not evident that the applicant has prepared appropriate plans details and mitigations which clarifies that the proposed HV ducting is to be designed and positioned to minimize potential impacts on both construction and operational phases of the national roads concerned with respect to existing N28 and the M28 scheme.
- M28 is a very complex and significant scheme. Co-ordination of construction of the two projects needs to be addressed. It is not clear in phasing if link to the M28 scheme or contingency in the event of delay of either project.
- Details associated with the co-ordination of construction of the two projects as well as contingencies should be submitted prior to a decision.
- An assessment of structures on the national roads and any proposed haul route to be undertaken to ensure that structures can accommodate proposed loading and an abnormal load assessment.
- A road safety audit in accordance with TII publications.
- It is noted that any works to national roads may require license and other consents.

5.2.3 Public submissions

Two no third party submissions were received by the Board from the following:

- Thomas and Mary O Shea, Leacht Cross, Carrigaline.

- Clare Kelly, Eden, Ballinrea, Carrigaline.

5.2.3.1 Submission from Thomas and Mary O Shea, Leacht Cross, Carrigaline. Observation relates to the proposed routing of the underground 110kV electrical cable grid connection through the townlands of Carrigaline Middle and Carrigaline East. Submission questions the requirement for the export of power produced at 110kV. It is understood that the normal mode of export for power from wind farms and renewable energy facilities is by use of 38kV transmission. The Barnahely substation was the original intended tie in point for the proposed PV development. Question whether the export of produced power at 110kV is essential with its attendant complexities or is it merely chosen in order to gain strategic infrastructure status for this aspect of the project.

The underground cable route is along narrow local roads L2490 and L6472 that serve 24 individual dwelling houses and a commercial residential unit. More direct and shorter routes are available. The margins of the N28 and along the L6472 to Raffeen substation involves a comparable route length of 1.9km approximately. A shorter length and significantly less disruption would arise in laying of cable along the margins of IDA landbank adjacent to the L6472. The underground cable construction will have a major impact on the provision of additional future services (mains/wastewater) for dwellinghouses located along the proposed cable route. Proposed underground cable installation provides no direct benefit to the dwellings of the area.

5.2.3.2 Submission from Clare Kelly, Eden, Ballinrea Carrigaline outlines objection to the proposed development on a number of grounds as follows:

- Procedural Issues and deficiencies in due process. - Decision of An Bord Pleanála to define the proposal as strategic infrastructure development is flawed, unjust and bad in law. Proposed development does not contribute significantly to the objectives of the National Planning Framework or contribute significantly to meeting any regional spatial and economic area or have a significant effect on the area of more than on planning authority.

- It is understood that the application presented three possible grid routes for the proposed 110kv cable.
- Consultation with ESB and Eirgrid is not evident.
- Public consultation – no details provided.
- An Bord Pleanála failed to include the relevant appropriate and directly impacted stakeholders on the list of prescribed bodies to be notified including ESB, Uisce Eireann (having significant assets in and around Shanbally).
- Site is proximate to Cork Harbour SAC. AA screening is inadequate and inappropriate. Failure to compile multi seasonal assessments and surveys to assess potential effects on the SAC results in a fundamentally flawed application.
- Non compliance with Environmental Impact Assessment Regulations 2018.
- Proposal depends on an as yet unconsented development (amending planning applications Cork City Council 23/41837 and Cork County Council 23/4563). Full EIAR would be mandatory for development of this scale and with the potential to significantly affect an SAC.
- Third parties are prohibited in viewing, considering and assessing combined impacts effects and detrimental influences on the environment due to split projects.
- Application information is inadequate to allow full assessment of impacts on water quality and seasonal birds, waterfowl, flora and fauna arising from the proposed solar scheme development and single option for 110kV substation grid connection and associated infrastructure.
- Route is badly designed in the incorrect location and will have detrimental impact on the landscape and visual amenities of the area.
- Lack of guidance at national, regional and local level with regard to siting, appropriateness of location and scale of solar projects.
- Carrying capacity of the local roads inadequate. CEMP poorly compiled and inadequate.
- A number of largescale significant and regionally critical utilities within the redline boundary. Applicant fails to account for the necessary temporary working areas and

permanent wayleave/easements for the proposed grid connection and associated infrastructure. For example separation distance to water and wastewater infrastructure within the Ballinrea Road / Shannonpark Road, temporary working areas to facilitate trenchless crossing of the new M28 motorway at Shannonpark, Carrigaline Middle and Ballyhemiken, working areas and working corridor for disposal of surface water from the required trenchless crossing works, 700mm ductile iron wastewater rising main pipeline within the reline boundary at the approach to the existing Raffeen Substation

- Health and safety provisions with regard to residential amenities of homes in Shannonpark, Ballyhemiken Carrigaline East and Raffeen.
- The proposal is visually obtrusive contrary to the proper planning and sustainable development of the area. High density and unsustainably intensive use of agricultural land that is poorly configured and incapable of facilitating development of this kind.
- ABP should deem the application invalid, premature and dependent on the receipt of all necessary enabling statutory consents necessary for the proposed solar farm developments and or refuse the proposal outright.

5.3 Applicant Response to submissions

5.3.1 The applicant prepared a response to the submissions which was received by the Board on 10th November 2023, the main points of which are summarised as follows:

- Regarding procedural issues raised in the submission of Ms Clare Kelly. Section 182A of the Act sets out the criteria and definitions for SID projects related to electricity transmission infrastructure under which an application for consideration under the SID provisions of the Act. As the proposed development relates to the transmission of electricity in a high voltage line of 110kV the proposed development satisfies the criteria set out in section 182A of the Act. This was confirmed in formal opinion from the Board following pre-application consultations.
- Proposal meets the objectives of the NPF the Regional Spatial and Economic Strategy for the Southern Region.
- Regarding community consultation applicant commenced public engagement for the proposed development in November 2022. An information leaflet was delivered to

homes in the area and residents invited to engage with the applicant via email telephone or in writing. Second round of engagement August 2022 where the engagement team visited properties along the grid route circulating updated information leaflet with details of planning application and inviting further engagement.

- Extensive engagement over a 12 month period with stakeholders including Cork County Council, Cork City Council, Eirgrid and M28 project team in grid selection process.
- Regarding Environmental Impact and assessments, Cork Harbour SPA was screened in for AA on a precautionary basis. Mitigation measures within the NIS and CEMP devised to ensure all pathways for potential impact on SPA were robustly blocked. Ecological impact assessment concluded that following incorporation of best practice measures the proposal will not result in significant impact on biodiversity, flora and fauna of the existing environment.
- Regarding assertion that the proposal requires a full Environmental Impact Assessment Report as outlined in the screening report EIA is not required.
- Regarding visual appearance siting location and scale of the solar projects the application is for substation and grid connection.
- Regarding adequacy of access road to facilitate the construction of the development a comprehensive traffic and transport assessment prepared and construction methodology clearly set out. Traffic related impacts were deemed to be temporary and slight.
- Regarding assertion that technical reports are deficient in terms of taking account of the necessary temporary working areas, permanent wayleave easements necessary for the proposed grid connection and associated infrastructure to be constructed appropriately and safely in order to be taken in charge by ESB. The applicant and appointed consultants fully aware of the design and construction requirements of the 110kV substation and cable. All necessary working areas, easements and construction requirements have been incorporated into the preliminary design.
- Applicant is fully aware of water and wastewater infrastructure in situ within the Ballinrea Road / Shannonpark Road. Ground penetration surveys completed to

confirm sufficient space within the existing road corridor of the new 110kV circuit while maintaining the necessary separation distance. M28 corridor crossings discussed with M28 team. Proposal for open trench as recommended by M28 will be completed in advance of M28 construction or in parallel. It is not planned to use trenchless crossings at either of the two M28 crossings at Shannonpark or at the Rock Road. Horizontal directional drill (HDD /trenchless crossing) planned at Ballyhemiken bridge. The required temporary working areas are included as part of the drawing submitted. Applicant fully aware of wastewater pipeline to the south of Raffeen Substation . GPR surveys were completed to confirm sufficient space within the road corridor for the proposed new 110kV circuit while maintaining necessary separation distances. Further site investigation works and additional engagement with Uisce Eireann will be completed as part of the detailed design process.

- Regarding the submission of TII in relation to route selection following discussion with Cork County Council it was advised that cable route through Carrigaline should be avoided hence *the N28 corridor and M28 was chosen*.
- The 110kV will become an ESB owned and operated asset once energised. The developer is therefore bound by the requirements of the Eirgrid ESB functional specifications for 110kV cables.
- Final M28 crossing points selected were presented to the M28 team who indicated their preference for these locations. Crossing point west of Shannonpark interchange is to be utilised as a service corridor which will have the 110kV cable circuit installed in parallel with watermains which are being diverted for the M28 project. M28 team provided a consent letter. Ongoing liaison with the M28 team will ensure necessary approval in advance of construction.
- Final route proposed is the most appropriate route available in order to limit disruption to local residents while also having the least impact on the proposed M28 project and satisfy EirGrid's requirements for 110kV cables.
- Regarding timing, at present the applicant is targeting a project energisation date of Q4 2025, subject to planning approval which would mean construction commencing in Q4 2024 or Q1 2025. Where possible the development will be carried out in parallel with the M28.

- Should the 110kV cable construction commence in advance of the M28 the M28 crossings will be designed and constructed to ensure that they provide no obstructions to future construction of the M28.
- Should the M28 construction commence in advance of project ducting can be installed at construction stage. Under no situation is it proposed that the 110kV circuit crossing the M28 would be installed after the M28 is constructed.
- There will be no impacts on the M28 scheme post construction of the M28. There will be no joint bay chambers or ancillary equipment located within the M28 corridor, meaning that there will be no requirement for any future access post construction.
- In relation to the N28 national road section has been carefully assessed by the applicants grid consultant to select a route that will have minimum impact to traffic volumes during construction and will not impact future works or maintenance to the national road corridor. Final positioning of the cable to be agreed with TII Cork County Council as part of detailed design stage.
- Additional drawing 05887 MS100 Cable route in M28 /N28 provided to provide further information on the proposed positioning of the cable in the M28/N28 sections. At first point to the N28 corridor the 110kV circuit is installed in an existing footpath/cycle lane in order to minimise traffic disruption. It is then proposed the cable will cross the road at close to a 90° angle. In order to minimise traffic disruption one lane will remain open at all times during construction which will take place at of peak hours. After the first crossing of the N28 it is proposed that the 110kV circuit be installed within existing footpath/cycleway thereby avoiding works within the carriageway at Shannonpark roundabout. Following Shannon park roundabout the cable will continue in the footpath /cycleway until it will again cross the N28, at close to a 90° angle with one lane remaining open and outside peak hours.
- On crossing the N28 the 110kV circuit is installed in the verge / edge of the N28 carriageway until the cable exits the N28 at Rock Road exit. One joint bay is proposed in this section to be installed in the merging lane on the approach to the Rock Road.

- Mitigation measures ensure no adverse impacts on the existing N28 road corridor or M28 route corridor.
- The positioning of the cable within the N28 should have minimum impact on any future maintenance or potential improvement works in the future.
- Open dialogue and transparency throughout the design and construction phase with TII and the local authority will ensure that the cable is positioned and installed so as to remove any potential future additional cost implications for road improvement and maintenance. Trench design will incorporate the requirements for reinstatement of openings in national roads and other applicable standards or specifications for reinstatement and surface dressing requirements.
- Applicant is aware that best practice would be for horizontal directional drilling to be used when crossing existing motorway, however as the M28 is not yet constructed the applicant believes that open trenching at a sufficient depth below motorway level can be completed either in parallel with M28 construction or in advance of M28 construction. The first M28 crossing point where the service corridor is to be located is at a point in the M28 where the motorway will be level with the existing ground and open trenching is therefore very suitable for this crossing point. HDD at this location can also be explored as part of the detailed design stage if necessary. It should be noted that there are no chambers or ancillary equipment to be located within the M28 corridor.
- Applicant is committed to ensure that the 110kV cable is designed and installed to minimise any potential impacts on both construction and operational phases of the national roads with respect to exiting N28 nor the M28 scheme.
- Proposed construction phasing and different scenarios assessed have been outlined to ensure coordination of construction of the two projects.
- Applicant will work closely with TII and the local authority to ensure that the 110kV cable design and positioning does not negatively impact the M28 or N28 while also satisfying the EirGrid Functional Specification requirements.
- Traffic management plan will be prepared to include details of haulage routes and vehicle types to be used to transport materials on and off site schedule of control

measures and assessment of impact of any abnormal weight loads. Reinstatement will be carried out post construction where necessary.

- Road safety Audit will be carried out prior to commencement of development.
- Regarding submission of Department of Housing Local Government and Heritage the applicant accepts recommendations for condition to include pre development archaeological testing, the engagement of suitably qualified archaeologist to advise and establish the appropriate seclusion zones around the heritage zones.
- Regarding the submission of Thomas and Mary O Shea questioning the rational for export power at 110kV, this is designed in line with the grid connection agreement in place with EirGrid.
- A number of alternative routes were initially identified. Feedback from the M28 team and Cork County Council Engineers was incorporated into final cable route selection process.
- The 110kV cable will become ESB owned and operated asset once energised. The developer is therefore bound by the requirements of the Eir Grid /ESB functional specifications for 110kV cables. One of EirGrid's requirements is that 110kV cables be installed in public road corridors or across public lands at all times where possible. Alternative route utilising L6472 to Raffeen was previously assessed and not selected as there is an existing 220kV EirGrid cable installed in the L6472 from the N28 to Raffeen substation meaning it is not technically feasible to install a second high voltage cable in the same narrow road corridor. While routing the cable in the margins of the M28 would greatly reduce cable length, TII will not allow HV cables to be installed within existing or new motorway corridors as a national policy. Margins of IDA landbank for final approach to Raffeen not feasible due to EirGrid requirements for public road network and location of existing 220kV.
- Selecting a cable route for the project was a very challenging process due to the urban location and proposed M28 project. Applicant contends that the final route is the most appropriate route available in order to limit disruption to local residents and businesses while also having least impact on the proposed M28 project and satisfying EirGrid's requirements for 110kV cables.

- Laying of the cable will be subject to road opening licence. Detailed engineering design taking account of existing services and traffic management details will be agreed with Cork County Council prior to commencement of development.
- The installation of high voltage cable circuits in local road corridors is standard practice across the country to facilitate the connection of energy generating assets to the national grid. The standard width of the trench to be installed will be 600-825mm wide for the majority of the route. Standard separation distances between high voltage ducts and water services is 300mm for standard services and 500mm for high pressure services. There will still be sufficient space within the road corridor for any additional future services following the installation of the new cable circuit. Joint bays are substantially wider than the standard trench however these will only be installed at approximately 700mm intervals. Joint bays will be installed to one side of the road to ensure that there is sufficient space for existing and future services. There are standard designs defined for the 110kV circuit to cross existing services. Future services will be able to cross over/under the 110kV circuit once minimum clearances are maintained.

6.0 Planning History

- **313613 Pre Application Consultations**

The Board determined that the proposed development consisting of 110kV substation and underground 110kV transmission line between the permitted solar farm at Ballinrea and existing substation at Raffeen, as set out in the plans and particulars, falls within the scope of Section 182A and that a planning application should be made directly to the Board.

- **Application to Cork County Council Ballinrea Solar Farm**

17/6784 ABP 303013-18 Permission granted for solar farm of 159,100m² of solar panels on ground mounted frames, 1 no substation, 10 no single storey inverter transformer stations, battery storage module and associated equipment building,

security fencing, satellite pole, CCTV and all associated ancillary development works. Construction and operational access to the site from existing entrance from the L2464. Granted 25/4/2019.

23/4563 Application for Modifications to Ballinrea Solar Farm. The modifications are within the boundary of the permitted development and will consist of: i) Changes to the layout and dimensions of the permitted solar photovoltaic layout which will decrease the solar photovoltaic footprint from c. 159,100 sq.m of solar panels, to c. 145,000 sq.m of solar panels on ground mounted frames. (This modification is to allow for the inclusion of a proposed 110kV substation and grid connection which will be subject to a separate application); ii) Amendments to the internal track layout and the removal of the permitted battery storage unit; iii) 6 no. single storey inverter/transformer stations (reduced from 10 no. permitted inverter/transformer stations). Permission is also sought for the provision of a 33kV internal network cable (c. 3,760m underground with c. 114m of overhead line) linking the Ballinrea solar farm with the Ballinvuskig solar farm (c. 1.74 km to the northwest). The proposed development includes all associated site works and ancillary infrastructure. A Natura Impact Statement (NIS) has been prepared in respect of the proposed development.

Further information was requested May 2023. The request sought a number of items of further information in relation to operational implication on faunal species including species of conservation interest in Cork Harbour SPA, Implications on route protection zones of peripheral trees and hedgerow habitats, a biodiversity management plan, landscape plan, glint and glare study and further glint and glare mitigation, archaeological architectural and cultural heritage impact assessment to include full list of mitigation, drainage impact assessment flood risk assessment, increased separation distance from residential properties and a site restoration plan.

A response was received on 31 October 2023 and Cork County Council website [ePlan - Online Planning Details \(corkcoco.ie\)](https://www.corkcoco.ie/ePlan) indicates that a decision is due on 03/01/2024.

- **Cork City Council Ballinvuskig Solar Farm (circa 1.6km to the northwest of the current application site)**

19/5371 ABP 305186-19 Permission granted for Solar Farm consisting of circa 178,600m² of solar panels on ground mounted frames. 1 no single storey 38kV substation and associated electrical compound with loop in to existing 38kV overhead line on a site via 2 no timber pole sets, 12 no single storey electrical inverter/transformer stations, battery storage module and associated equipment container, security fencing, satellite pole, CCTV landscaping and all associated ancillary development works. Construction and operational access via an existing entrance from the L2462. The proposal to connect to the national grid via loop in to existing overhead wires that traverse the site, The operational lifespan of the solar farm will be 35 years.

23/41837 Modifications for Ballinvuskig Solar Farm. The proposed modifications are entirely within the boundary of the permitted development and will consist of (1) the exclusion of the permitted 38kV substation and grid connection which comprised of a loop in to the existing 38kV overhead line on site (2) The exclusion of the permitted battery storage unit and container unit (3) A reduction in number of inverter/transformer stations from 12 no permitted and 8 no inverter/transformer stations (4) the provision of a ring main unit to facilitate connection of the Ballinvuskig solar farm to a proposed 110kV substation at Ballinrea. (5) Assorted changes to internal access tracks and layout and dimensions of their permitted pv panels which will increase the solar photovoltaic footprint from 178,600sq.m of ground mounted solar panels to 188,000 sq.m of ground mounted solar panels; and all associated site works and infrastructure. NIS submitted with the application.

Further information request issued on 9/5/2023 which sought a number of detailed matters including, construction and operation phase entrance specifications and detailed drawings, traffic management plan. With regard to the ecological impact assessment report breeding surveys to be undertaken during optimum survey timing, survey for wintering waterbirds across a range of tidal stages particular attention to high tide when many waterbirds forage terrestrially, baseline aquatic survey, more detailed assessment of potential impact on bats. Cumulative effects to be considered. Having regard to the NIS and supporting documentation, it is not considered that adequate information has been provided to rule out significant negative impacts on waterbird SCIs of Cork Harbour SPA. Further data analysis and

assessment to include a programme of surveys for wintering waterbirds to include greater survey effort with surveys across a range of tidal stages, but particularly at high tide when waterbirds move inland to forage terrestrially. Recording of detailed baseline data such as species behaviour habitat birds etc.

I note that by correspondence dated 27th October 2023 Cork City Council confirmed an extension of the appropriate period for responding to the further information request to 19th February 2024.

- I note that in relation to the concurrent applications as outlined above 23/04563 Cork County Council and 23/41837 Cork City Council the application details indicate that the proposed modifications to Ballinvuskig and Ballinrea solar farm are intended to facilitate the applicant to progress both solar farms together as one renewable energy producing facility. If permitted the proposed 110kV substation will replace the permitted substation at Ballinrea and will facilitate the connection of the energy produced from both solar farms to the national electricity grid. The modifications to the Ballinvuskig Solar farm if permitted will remove the permitted 38kV substation at the Ballinvuskig solar farm.
- **ABP Ref HA0053** M28 Cork To Ringaskiddy Road Project and Motorway Scheme with Service Area at Ringaskiddy. Granted 29/06/2018. (The proposed grid connection crosses the permitted M28 route at two locations)
- **Part 8** Road reconfiguration and public realm enhancements within the centre of Carrigaline to provide a strategic pedestrian and cycle route through Bridgemount, referred to as the Bridgemount link.
- **22/04809** Permission for 98 houses and ancillary site development works.

7.0 Policy Context

7.1 National Planning Framework (NPF)

The NPF is a high-level strategic plan to shape the future growth and development of the country to 2040. It is focussed on delivering 10 National Strategic Outcomes (NSOs). NSO 8 focuses on the 'Transition to a Low Carbon and Climate Resilient Society' and recognises the need to harness both on-shore and off-shore potential from energy sources including solar and deliver 40% of our electricity needs from renewable sources.

It is stated in the NPF that "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".

Section 5.4, 'Planning and Investment to Support Rural Job Creation', notes that 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.

It is a National Policy Objective (NPO 55) to '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'.

7.2 National Energy Security Framework

Published in April 2022 – provides an overarching and comprehensive response to Ireland's Energy security needs in the context of the war in Ukraine. The framework outlines the structures in place to monitor and manage energy supplies.

The framework outlines proposals to speed up the country's shift to increased energy efficiency and indigenous renewable energy systems.

7.3 Energy Security in Ireland to 2030 Energy Security Package November 2023

This document outlines a strategic approach to ensure a secure transition to 2030, learning in particular from the disruption to European energy supplies following the invasion of Ukraine and the domestic capacity shortfall experienced in the electricity sector mid-transition. The Energy Security Package sets out actions for the short- and medium-term by prioritising:

1. Reduced and Responsive Demand.
2. Renewables-Led System.
3. More Resilient Systems.
4. Robust Risk Governance

This approach integrates energy, climate, enterprise and digitalisation policy ambitions so that Ireland's energy future is clear and certain. It will also ensure a secure transition.

7.4 Climate Action Plan 2023

The Climate Action Plan 2023 published in December 2022 is the second annual update to Ireland's Climate Action Plan 2019. The plan was prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021 and following the introduction in 2022 of economy wide carbon budgets and sectoral emissions ceilings. The Plan implements the carbon budgets and sectoral emission ceilings and sets out a roadmap for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050.

Sectoral emission ceilings for the electricity sector are set out in Chapter 12 of CAP 23. A target of achieving 80% of Ireland's energy produced from renewable sources by 2030 with a target of 8GW of that being produced by solar energy.

Measures set out in Cap 23 for accelerated renewable energy generation specifically aim at 5GW of solar installed by 2025 and 8GW of solar by 2030. It is noted that transformational policies, measures and actions, and societal change are required to increase the deployment of renewable energy generation, strengthen the grid, and meet the demand and flexibility requirements required to meet the challenge.

7.5 Ireland's National Energy and Climate Plan 2021-2030

The National Energy and Climate (NECP) Plan is an integrated document mandated by the European Union to each of its member states in order for the EU to meet its overall greenhouse gases emissions targets. The plan establishes key measures to address the dimensions of the EU Energy Union, including:

- To achieve a 34% share of renewable energy in energy consumption by 2030.
- To increase electricity generated from renewable sources to 70%.

7.6 Regional Spatial Economic Strategy (RSES)

The RSES for the Southern Region seeks to achieve balanced regional development and full implementation of Project Ireland 2040- The National Planning Framework. The RSES provides a regional policy position for the consideration of renewable energy in land-use planning. Chapter 5 of the RSES deals with Environment focusing on Regional Strategic Outcome of a low carbon climate resilient and sustainable society. Chapter 8 deals with Water and Energy Utilities and notes that “the existing infrastructure...is essential for the continued provision of a secure and reliable electricity supply.” The following Regional Policy Objectives are noted:

RPO 95 – Sustainable Renewable Energy Generation. “It is an objective to support implementation of the National Renewable Energy Action Plan (NREAP) and the Offshore Renewable Energy Plan and the implementation of mitigation measures outlined in their respective SEA and AA and leverage the Region as a leader and innovator in sustainable renewable energy generation.

RPO 96 – Integrating Renewable Energy Sources - to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure to integrate renewable energy sources and ensure our national and regional energy system remains safe, secure and ready to meet increased demand as the regional economy grows.

- RPO 100 – Indigenous Renewable Energy Production and Grid Injection - to support the integration of indigenous renewable energy production and grid injection.
- RPO 219 - New Energy Infrastructure - to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers.
- RPO 222 - Electricity Infrastructure - to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects.

7.7 Development Plan

The **Cork County Development Plan 2022-2028** refers.

In terms of the zoning designations the site is located within the “Metropolitan Green Belt” defined as a rural area under strong urban influence within close commuting distance of Cork City.

In terms of the core strategy the site is within the Cork Metropolitan Strategic Planning Area.

Chapter 13 Energy and Telecommunications notes that a radical transformation of our energy system is required to meet national European and international climate policy objectives.

County Development Plan Objective ET13-22 Transmission Network.

a) To co-operate and liaise with statutory and other energy providers in relation to power generation in order to ensure adequate power capacity for the existing and future needs of the County including business and residential demands.

b) Proposals for new electricity transmission networks will need to consider the feasibility of undergrounding or the use of alternative routes especially in landscape character areas that have been evaluated as being of high landscape sensitivity.

This is to ensure that the provision of new transmission networks can be managed in terms of their physical and visual impact on both the natural and built environment and the conservation value of European sites.

c) Proposals for development which would be likely to have a significant effect on nature conservation-sites and/or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.

County Development Plan Objective WM 11.3 – Groundwater Protection

- a) Preserve and protect groundwater and surface water quality throughout the County.
- b) Prevent or limit, as appropriate, the input of pollutants into groundwater and prevent the deterioration of the status of all bodies of groundwater.
- c) Protect, enhance and restore all bodies of groundwater and ensure a balance between abstraction and recharge of groundwater with the aim of achieving good groundwater quantitative status and good groundwater chemical status.
- d) Reverse any significant and sustained upward trend in the concentration of any pollutant resulting from the impact of human activity in order to progressively reduce pollution of groundwater.
- e) Achieve compliance with any standards and objectives established for a groundwater dependant protected area included in the register of protected areas.

BE 15.6 Biodiversity and New Development. Provide for the protection and enhancement of biodiversity in the development management process and when licensing or permitting other activities.

HE 16-5: Zones of Archaeological Potential Protect the Zones of Archaeological Potential (ZAPs) located within historic towns, urban areas and around archaeological monuments generally. Any development within the ZAPs will need to take cognisance of the upstanding and potential for subsurface archaeology, through appropriate archaeological assessment.

HE 16-9 Archaeology and Infrastructure Schemes

All large scale planning applications (i.e. development of lands on 0.5 ha or more in area or 1km or more in length) and Infrastructure schemes and proposed roadworks are subjected to an archaeological assessment as part of the planning application process which should comply with the Department of Arts, Heritage and the Gaeltacht's codes of practice. It is recommended that the assessment is carried out following pre planning consultation with the County Archaeologist, by an appropriately experienced archaeologist to guide the design and layout of the proposed scheme/development, safeguarding the archaeological heritage in line with Development Management Guidelines

Sections of the proposed grid connection route pass through lands to which the following designations within the Development Plan refer:

CL-U-02 Greenway project.

CL-U-05 Greenway project.

CL-U-12 Upgrade of Rock Road

RY-U-02 M28 Cork to Ringaskiddy Motorway Scheme.

7.8 EIA Screening

The application includes an EIA screening report which sets out that the proposed development is not a project defined in Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, requiring a mandatory Environmental Impact Assessment Report (EIAR).

Notwithstanding that the applicant prepared and submitted a screening assessment based on the criteria of Schedule 7 of the Planning and Development Regulations 2001 as amended, I note that an electrical substation and/or underground cabling is not a class of development contained in parts 1 or 2 of Schedule 5 of the Regulations which sets out the prescribed classes of development and thresholds that trigger a mandatory EIAR.

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 therefore constitute sub-threshold development and neither a mandatory EIA, nor screening for EIA, is required.

8.0 Oral Hearing

An oral hearing was requested in the observer submission by Thomas and Mary O Shea, Leacht Cross Carrigaline. Following review of the matter the Board directed on 9th November 2023 that an Oral Hearing in respect of the application is not required and that the case can be dealt with adequately through written procedure.

9.0 Assessment

- 9.1 Having examined the application details and all other documentation on file including all of the submissions received in relation to the application, and having inspected the site, and taking account of relevant local, regional and national policies and guidance, I consider that the main issues arising in the planning assessment are as follows:

Principle of Development and Planning Policy

Landscape and Visual Impact

Impacts on biodiversity.

Impact on residential and other amenities

Traffic and road safety impacts

Water

Archaeology and Cultural Heritage

Other Issues

Appropriate Assessment

9.2 Principle of development and planning policy

9.2.1 As outlined at Section 7 above, the key strategic policies and objectives set out at national, regional and local levels support and require investment in Ireland's grid as a key driver to enable the realisation of a shift to increased energy efficiency and indigenous renewable energy systems. Renewable energy development is strongly supported 'in principle' at national, regional and local policy levels, with collective support across government sectors for a move to a low carbon future and an acknowledgement of the need to encourage the use of renewable resources to reduce greenhouse gas emissions and to meet renewable energy targets set at a European Level. National Policy Objective no. 55 of the National Planning Framework is to promote renewable energy use and generation at appropriate locations within the built and natural environment. It is also an action of the NPF under National Policy Objective no. 8 to reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres. At a local level the Cork County Development Plan 2022-2028 seeks to support the sustainable development of renewable energy sources. It is an objective of the plan under ET 13-21 Electricity Network to *'a) support and facilitate the sustainable development, upgrade and expansion of the electricity transmission grid, storage, and distribution network infrastructure" b) support the sustainable development of the grid including strategic energy corridors and distribution networks in the regional to international standards. c) facilitate where practical and feasible, infrastructure connections to windfarms, solar farms and other renewable energy sources subject to normal proper planning considerations.'*

9.2.2 The proposed development is intended to facilitate the connection of the permitted Ballinrea Solar farm and permitted Ballinvuskig Solar Farm to the national grid and is therefore integral to the generation of renewable energy. I am satisfied that the proposal complies with the policies and objectives as set out in Section 7 above.

9.2.3 I note that the third party submission question the use of agricultural land for development of this nature. I observe that the principle of the solar farm development has been accepted in terms of the permitted Ballinrea solar farm development (PI

Ref 17/6784 ABP Ref-303013) and it follows that the principle of any development required to enable the permitted development should also be acceptable in principle subject to assessment of detailed matters. Having regard to the foregoing I am satisfied that the development of a 110kV electricity substation and associated grid connection is acceptable in principle.

9.3 Landscape and visual impact

9.3.1 Third party submissions raise some concerns regarding the visual impact particularly in combination with the Ballinrea solar farm development having regard to the location of the site within a rural agricultural area. I have noted the Landscape and visual impact assessment carried out by Macroworks Ltd. and submitted with the application which sets out to describe and assess the effect of the development on the landscape. The report concludes that in terms of landscape impacts the substation will read as a minor ancillary development within the overall context of the consented solar farm development but one that does not noticeably alter the effects on landscape character. Grid connection works will result in minor construction stage landscape and visual effects which will cease once operational. An imperceptible significance of visual effects is noted in terms of 12 viewpoint locations. On the basis of the assessment it is concluded that there will not be any significant impacts arising from the proposed development.

9.3.2 In terms of the landscape character area the development plan designation referring to the site is LCT06a "Broad Fertile Lowland Valleys" which is identified as having high landscape sensitivity and high landscape value and landscape importance at County level. The Landscape Visual Impact Assessment contends that within the study area there are no particularly distinctive or rare landscape elements and that the site is within a robust but diverse landscape at the interface of multiple landscape types. It is contended that whilst the area is distinctively rural, it is not particularly unique, rather, an atypical peri-urban working landscape setting influenced by an array of anthropogenic land uses typical of the outskirts of major settlement. I consider that this is an apt description of the site context and consider that the landscape context presents a strong capacity to absorb development.

9.3.3 As regards visibility of the proposed substation I note the zone of potential theoretical visibility presented as Figure 1.8 on page 22 of landscape and visual impact assessment report. This was produced in respect of the solar development but also applies to the substation. The “bare ground” ZTV map demonstrates limited potential for visibility aside from the immediate context predominantly from elevated hills and ridges with no potential for visibility from Cork City, Passage East or Monkstown and only limited visibility from the eastern part of Carrigaline at more than 2.5km from the substation site. The digital surface model shows very little potential for visibility of the proposed substation within the surrounding landscape. A number of Viewshed reference points (those used in the assessment of the original solar farm development) seek to examine the visibility of the proposed development in detail. An analysis of visual receptor sensitivity and magnitude of visual effects is set out at 1.6.2.2 and are categorised as imperceptible / neutral.

9.3.4 In assessing the potential for visual impact, I note that the substation site is located in a discrete section of the solar farm site and it is well buffered from the nearest visual receptors. Landscape mitigation measures relating to the permitted Ballinrea solar farm to be implemented as part of the overall development will provide considerable effective screening. No significant excavation is required for the substation site. New and improved access track will be similar to farm tracks which are common in this rural context and will not be visually prominent. I consider it reasonable to conclude that the proposed substation will be contained and visually absorbed within the permitted Ballinrea solar development where it will read as a modest scale, legible and ancillary aspect of the overall solar development. The proposed new cable bay at Raffeen Substation is in keeping with the existing infrastructure and will not give rise to any significant visual impact. On the basis of the foregoing I consider that the magnitude of visual impact arising from the proposed development is not significant. The proposed development will not unduly impact on the character of the wider landscape or the visual amenities of the local area and there is no barrier to the proposed development in terms of landscape and visual impacts

9.4 Impact on Biodiversity.

- 9.4.1 An Ecological Impact Assessment prepared by MKO Planning and Environmental Consultants on behalf of the applicant provides an overview of ecology within the proposed development site and potential ecological effects arising from the proposed development. The report is informed by desk study and multi-disciplinary field surveys carried out on 13th, 17th, 18th July 2022, 13th September 2022 and 14th October 2022 including otter survey, badger survey bat survey and bird survey.
- 9.4.2 The site is not within or directly adjacent to any designated site. The nearest such designated sites is the Owenboy River proposed NHA (001990) which is 0.63km from the grid connection route. Hydrological connectivity to this pNHA exists via unmapped watercourse at Ballinrea Cross which discharges to the Owenboy river approximately 1.2km downstream and which in turn discharges to the pNHA c 4km downstream. Monkstown Creek pNHA is located 1.27km from the grid connection route with hydrological connection via unmapped watercourse west of Shannonpark Roundabout discharging to Hilltown stream along the N33 which discharges to the pNHA c1.3km downstream. Pathways that could potentially result in the deterioration of water quality during construction were considered in the design phase. Construction methodologies and best practice measures set out mitigating principles to ensure that potential pathways for impact on aquatic receptors. A further 20 proposed NHA sites within 15km of the site have no hydrological connectivity and no potential for significant indirect effects.
- 9.4.3 The impact of the proposed development on European Sites is addressed in Section 10.6 Appropriate Assessment below. I note that the Cork Harbour SPA was screened in for Appropriate Assessment and identified as a key environmental receptor on the basis of hydrological connectivity via unmapped watercourses and the Hilltown stream.
- 9.4.4 Potential impacts on local biodiversity associated with the proposed development include loss of habitat and disturbance or displacement of species. As regards

construction phase impact on habitats it is noted that the proposed substation and grid connection route which is within agricultural lands, road infrastructure and recently cleared lands resulting in the loss of Improved Agricultural Grassland (GA1), Buildings and Artificial Surfaces (BL3), Spoil and Bare Ground (ED2) and Recolonising Bare Ground (ED3) which have been assessed as local importance (lower value). Habitats of local importance higher value are assessed in details. Regarding the loss of linear habitat features – hedgerows and trees it is noted that a section of hedgerow will be removed where the proposed grid connection route exits the Ballinrea solar farm site, where it joins the N22 at Shannon Park roundabout and where it re-joins the L2490 after going off road around Ballyhemiken bridge. Section of hedgerow to be lost typically comprises hawthorn, and gorse with dense understorey of bramble. A mature ash tree is to be removed at Ballyhemiken bridge to enable horizontal directional drilling works. A permanent loss of 4m of hedgerow and temporary loss of 4m is considered minor. It is noted that mitigation proposed for solar farm will provide for c2,180m of new hedgerow and enhancement of 1,822m of existing boundary hedgerows.

- 9.4.5 Regarding impact on water quality there are no watercourses within or adjacent to the proposed substation. The grid connection route requires water crossings of unmapped watercourses at Ballinrea cross and northeast of Shannon park roundabout and will run in close proximity to the Hilltown Stream adjacent to the N22. The potential exists for deterioration of water quality arising from the run off of pollutants during construction and potential for impact on sensitive aquatic receptors including salmonids, lamprey and european eel. All watercourses associated with the proposed grid connection route have downstream connectivity to Cork Harbour SPA. In the absence of mitigation deterioration of water quality has the potential to result in significant effect on aquatic receptors of local, national and international importance. Construction methodologies and best practice measures are set out to ensure that work is carried out in a manner which blocks all potential pathways for impact on aquatic receptors.

9.4.6 Regarding impacts on fauna, key environmental receptors include bats, birds and otter. The surveys undertaken of the site did not identify the site of the proposed development as providing significant habitat for any other protected faunal species. Regarding bat species, no roosts were identified along the proposed grid route. Felling works are limited to two sections of hedgerow (total 8 linear metres) and one mature ash tree which presents low roosting potential for bats. No significant impacts on bats are anticipated. Taking a precautionary approach the mature ash tree to be felled will be surveyed by an ecologist in advance of felling to ensure no destruction or disturbance of opportunistic roosts. In the event of identification of a roost, a derogation licence will be required.

9.4.7 Regarding bird species, the permanent loss of grassland habitat to accommodate the proposed substation would constitute a permanent negative effect on birds. The temporary loss of a section of hedgerow and permanent loss of another (amounting to approximately 8m and felling of one mature tree would constitute a negligible negative effect on birds during construction. The grid connection route has potential to result in short term slight negative effect on nesting bird species during construction. Should disturbance result in mortality of nesting birds this impact has the potential to be significant. Mitigation measures and best practice procedures are designed to ensure no residual effects.

9.4.8 Regarding otter no evidence of otter including otter resting or breeding sites were recorded during surveys however the unmapped watercourse at Ballinrea Cross and the Hilltown Stream provide potential foraging and commuting habitat for this species. The construction phase has potential to cause deterioration in water quality within and downstream. Construction methodologies and best practice measures incorporate procedures to ensure that works are carried out which blocks potential pathways for impact on aquatic receptors. Disturbance limitation measures will be implemented to ensure no residual effect on otter.

9.4.9 Overall, having regard to the ecological value of the habitats present and that the development will occur largely within managed cultivated lands, and the absence of any protected or rare species within the development site, I am satisfied that the proposed development subject to conditions will not have any significant effect on the overall ecology and general biodiversity of the area. Regarding cumulative assessment I am satisfied that it has been demonstrated that there is no potential for the proposed development to contribute to any cumulative adverse effect on biodiversity when considered in combination with other plans and projects.

9.5 Impact on Residential and Other Amenities.

9.5.1 I note that the proposed substation site is proximate to a number of residential properties, the nearest being approximately 350m from the proposed substation site. Regarding potential for noise disturbance a noise impact assessment by AONA Environmental Ltd sets out to determine potential impacts. Noise monitoring locations were selected to record representative background level in proximity to the nearest residential properties to the proposed substation. An assessment of potential adverse impact notes that the solar farm will not result in a tonal impulsive or intermittent characteristic at the nearest residential properties. Daytime and night time background noise levels in the wider area is dominated by Ballinrea Road traffic and agricultural noise sources. The predicted noise level of 15.2dB(A) L_{Ar} at the nearest dwelling will not be audible or cause noise nuisance. Regarding construction noise, temporary and intermittent increases in noise levels during the construction phase will be short term and will not be significant therefore adverse impacts are not predicted.

9.5.2 Whilst perceptible, impacts arising from dust, waste or traffic are not likely to be significant and can be adequately controlled by way of standard best construction practice. I am satisfied that having regard to the distance of the proposed substation site to neighbouring properties, the nature, progressive character and limited duration of cable laying for grid connection that significant negative impacts on residential amenity will not arise.

9.6 Traffic and road safety impacts

9.6.1 Regarding traffic the application is accompanied by a traffic and transport assessment by Alan Lipscome, Traffic and Transport Consultants. The assessment notes that the main effects to traffic due to construction will include impacts due to increased traffic generated on the local road network during construction. Trench excavation and setting of the cable within the public road network will require temporary closure of road sections resulting in increased journey times and diversion and disruption to traffic during the construction period.

9.6.2 Background traffic flows were assessed by way of traffic counts undertaken during AM (07:00-10:00) peak and PM peak 16:00-19:00 on Wednesday 3rd May 2023. Data from continuous traffic counters maintained by TII on the N28 at two locations also informed assessment. The percentage increased traffic generation for the relevant sections of roadways along the grid connection route were estimated. Taking a precautionary approach for the purpose of the assessment it is assumed that localised closures of each section of public road where construction is taking place. The exception to this is a section of the N28 where it is assumed that 2 way traffic flows will be retained by means of localised traffic management. It is estimated that traffic impacts on the local network will be experienced by local traffic on a total of 135 working days with diversion on relevant sections on 100 days. During the entire construction period of 135 working days a total of 430,638 trips on the route will experience an impact resulting in a total of 11,441 additional vehicle hours spent on the network and 572,065 vehicle kms travelled on the network during the construction period. For vehicles affected this will result in an average of 1 minutes and 36 seconds added to each journey time and an average detour of 1.33km.

9.6.3 Mitigation measures are incorporated in a traffic management plan and include a traffic management coordinator, delivery programme, information co-ordination, pre

and post construction conditions survey, liaison with local authority, travel plan for construction workers, reinstatement works, diversions and road closures, trench reinstatement. Having considered the identified impacts and the mitigation measures it is considered that residual impacts will be slight to medium in effect and will not significantly impact on the carrying capacity of the road network or local traffic. Construction of the proposed cable route and substation is intended to take place during the course of construction of Ballinrea solar farm and cumulative traffic impacts are temporary and slight in terms of severity.

9.6.4 I have noted the third party concerns which contend that more appropriate alternative routes are available which would reduce the extent of disruption and driver inconvenience including via IDA owned lands. The first party in response to the submissions outlines the consultation process and the alternatives considered and asserts that the final route is the most appropriate in terms of creating least impact whilst meeting Eirgrid's requirements for a 110kV connection which include a requirement for routing in public road corridors or across public lands where possible. I consider that based on the detailed submissions of the applicant a justification for the chosen route has been demonstrated.

9.6.5 I have outlined and reviewed the detailed submission of TII which questions compliance with the provisions of official policy related to existing and permitted national road schemes and the protection of the national road network assets with respect to strategic traffic on the N28 and proposed M28. Specific concerns are raised with regard to both construction and operational phase and mitigation with respect to the existing N28 and phasing of the proposed M28 and potential cost implications arising from the presence of high voltage cabling. The applicant, in response notes extensive dialogue with TII and Cork County Council to ensure that adverse impact on the N28 and proposed M28 route corridor are identified and mitigated to remove any potential future additional cost implications for road improvement and maintenance. As regards the timing of works for the proposed development and M28 project construction the potential phasing in terms of the different possible scenarios are outlined in the applicants response to observations

to achieve co-ordination of construction and ensure that the M28 project is not compromised.

9.6.6 The applicant notes the letter from Senior Executive Engineer Cork County Council which refers to the M28 Cork to Ringaskiddy project team at Cork National Roads Office having had ongoing discussions with Ballinrea Solar Farm Team in terms of the preparation of the planning application and indicating that the crossing of the motorway alignment will be facilitated and consent given to the use of the lands acquired for the M28 project for the connection of utilities. Further direct liaison with the M28 site team is intended to progress the detailed design to optimise all utility crossings of the motorway.

9.6.7 Regarding crossing points within the N28 the route selected seeks to minimise impact to traffic volumes during construction and will not impact future works or maintenance to the road corridor. A traffic management plan and road safety audit are proposed to be carried out prior to commencement of development. Cable laying will be subject to a road opening license whereby detailed engineering design taking account of existing services and traffic management details will be agreed prior to commencement of development. Having considered the proposals as outlined I consider that the application has demonstrated that the proposed development can be carried out without compromising the national roads. The proposed grid route has been justified in terms of environmental efficiency and the sustainable use of existing infrastructure and the proposed development can be provided managed and maintained without adverse effect on the national roads. Based on the information submitted, I am satisfied that the proposed development can be adequately accessed, and that the surrounding road network has adequate capacity to cater for both standard construction vehicles and any abnormal loads that are necessary to the proposed development. Appropriate conditions are recommended below.

9.7 Water

9.7.1 Regarding water supply a new connection is proposed to adjacent water services and no issues have been raised in this regard. Foul water is proposed for discharge

to on site holding tanks for removal off site by a licensed contractor. Regarding site drainage the proposal provides for attenuation including 2 no infiltration tanks and a hydrocarbon interceptor to mitigate against groundwater pollution. Regarding flood risk the site is within flood zone C. As regards impact of cable laying on water and wastewater infrastructure the applicant has outlined extensive review of existing infrastructure including the ground penetrating radar surveys (GPR) carried out at various locations along the grid route as part of the selection process to ensure that minimum separation distances are achieved. Further advanced survey techniques will be used prior to construction to ensure that underground services are not impacted by the proposed underground cable route construction. I am satisfied that the proposed development can be provided without adverse impact on existing services and infrastructure in the vicinity.

- 9.7.1 Best environmental practice measures are to be employed during the construction of the proposed development to include the implementation of silt protection controls such as silt traps and silt fencing. Such matters can be addressed as part of a detailed Construction and Environmental Management Plan to be agreed with the Local Authority prior to the commencement of development.

9.8 Archaeology and cultural heritage.

- 9.8.1 I note the submitted archaeological and cultural heritage assessment by Rubricon Heritage which identified 112 sites of archaeological and/or cultural heritage significance within the defined study area and 10 areas of archaeological potential identified following geophysical survey. A direct impact will occur on 10 cultural heritage sites including three previous excavations, five townland boundaries and two areas of archaeological potential. It is noted that the three previous excavations have been resolved as part of the M28 Archaeological service contract and no further mitigation is recommended. Townland boundaries are at locations where the pipe trench is to be excavated along existing road and no further mitigation is recommended. An indirect impact on three RMP sites is predicted as the development traverses their zone of notification. Mitigation measures are set out including archaeological test trenching of footprint of the substation and

archaeological monitoring of the cable route. Strategy is to be devised in conjunction with County Archaeologist and National Monuments Service regarding preservation in situ where possible.

9.8.2 The submission of the Development Applications Unit of the Department of Housing Local Government and Heritage broadly agrees with the findings of the Archaeology and Cultural Heritage Assessment report and recommends a number of conditions in respect of pre development testing of areas of proposed ground disturbance within the greenfield portion of the scheme, an archaeological impact statement and mitigation strategy, the establishment of exclusion zones around external most elements of vulnerable heritage assets. CEMP is to be updated to include location of archaeological and cultural heritage constraints.

9.8.3 Having regard to the application documentation, including the Archaeological Assessment, the Observation of the Department and the applicant's response to the observations, I consider that suitable conditions can be attached to any grant of permission to adequately mitigate impact on archaeology and cultural heritage.

9.9 Other Matters

9.9.1 Regarding the concern raised with regard to procedural matters and the contention that the application does not meet the criteria to be defined as Strategic Infrastructure Development I note that the Board previously assessed this matter concluding pre application consultations (ABP.313613) under Section 182E of the Act and issued an opinion as to the SID status of the proposed development.

9.9.2 As regards the contention that the list of prescribed bodies notified as part of the application is incomplete, I note that the applicant forwarded the application for consultation to the bodies as recommended by the Board and further has outlined that extensive engagement has been carried out with the ESB and Uisce Eireann as significant stakeholders. On the issue of public consultation I note that as outlined in the Planning and Environmental report and in further information response the applicant's community engagement team provided leaflets to homes along the route

in November 2022 and August 2023 providing necessary information to enable third parties to engage with the application.

9.9.3 Regarding the contention that the application is premature pending determination of concurrent applications with Cork City Council 23/41837 and Cork County Council 23/4563, I note that these are amending applications and as the principle of Solar farm development has been accepted at this location in terms of the permitted Ballinrea solar farm (PL17/6784 ABP303013), therefore I do not consider that determination should be deferred.

10.0 Appropriate Assessment

10.1 The requirements of Article 6(3) as relate to screening the need for appropriate assessment of a project under part XAB, sections 177U of the Planning and Development Act 2000 (as amended) are considered fully in this section.

10.2 Background on the application .

10.2.1 The applicant has submitted a Natura Impact Statement including Stage 1 screening for Appropriate Assessment as part of the planning application. The report is by MKO Planning and Environment Consultants dated 23 July 2023. The applicant's stage 1 AA screening report was prepared in line with current best practice guidance and provides a description of the proposed development and identifies European sites within a possible zone of influence of the development.

10.2.2 The applicant's AA screening report concluded that as a potential pathway for significant effect on Cork Harbour SPA (Site code 004030) was identified, an appropriate Assessment is required and an NIS is included with the application.

10.2.3 Having reviewed the documents and all 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.

10.3 Screening for Appropriate Assessment – Test of likely significant effects.

- 10.3.1 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.
- 10.3.2 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 determine whether it may give rise to significant effects on any European Site.
- 10.3.3 I have reviewed the Appropriate Assessment Screening carried out by the applicant's consultants in which the Natura 2000 identified as being sites potentially being within the zone of influence of the proposed development: Cork Harbour SPA [004030] and Great Island Channel SAC [001058]. Having regard to the information and submissions available, nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors, I am satisfied that all relevant Natura 2000 sites within the zone of influence of the development have been adequately considered for the purpose of screening. I do not consider there to be any additional sites required to be assessed at screening stage.
- 10.3.4 Having reviewed the documents and submissions. I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone or in combination with other plans or projects on European sites.

10.4 Brief Description of the development.

- 10.4.1 The applicant provides a description of the development in Section 2.2.1 of the NIS and the details are as set out Section 3 above. In summary the development comprises a 110kV substation, a tail fed underground grid connection from the proposed 110kV substation to the existing Raffeen 220kV substation, a proposed new 110kV cable bay at the existing Raffeen 220kV substation and associated works.

- 10.4.2 The proposed development is intended to connect the permitted solar farm at Ballinrea and permitted solar farm at Ballinvuskig to the national grid.
- 10.4.3 The proposed substation is to be located within the boundaries of the permitted Ballinrea solar farm, which comprises managed agricultural lands classified as Improved Agricultural Grassland (GA1) and Wet grassland (GS4). The grid connection route will connect the Ballinrea solar farm to the existing Raffeen substation. The proposed grid connection is to be provided in predominantly excavated trenches. The road infrastructure is classified as Buildings and Artificial Surfaces (BL3) and delineated by Hedgerows (WL1) Mature Treelines (WL2). Stone Walls and Other Stonework (BL1), Dry Meadows and Grassy Verges (GS2) and Buildings and Artificial Surfaces (BL2). A section of the grid connection route goes off road crossing and area of recently excavated agricultural lands cleared for the proposed M28 road development. The relevant habitats classified as Spoil and Bare ground (ED2) and Dry Meadows and Grassy Verges (GS2) and Recolonising Bare Ground (ED3). Water crossings of unmapped watercourses at Ballinrea Cross and northwest of Shannon Park Roundabout are classified as Upland / Eroding Rivers (FW1).
- 10.4.4 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/construction related pollution.
 - Habitat loss / fragmentation
 - Habitat disturbance / species disturbance (construction and or operational)

10.5 Submissions and Observations

- 10.5.1 I note that the observer submission by Clare Kelly questions the adequacy of appropriate assessment screening citing particularly the absence of multi seasonal

assessments and surveys to assess potential environmental impacts on European sites of the grid connection and associated applications.

10.6 European Sites

10.6.1 The development is not located in or immediately adjacent to a European Site. The closest European sites are the Cork Harbour SPA [004030] within 0.66km and Great Island Channel SAC [001058] at a distance of 6.68km.

10.6.2 A summary of European sites that occur within a possible zone of influence of the proposed development is presented in the table below. Where a possible connection between the development and a European site has been identified these sites are examined in more detail.

Table 10.6.2.1 – Summary Table of European sites within a possible zone of influence of the proposed development.

European Site Code	Distance	Qualifying Interests	Connections Source – Pathway - Receptor	Considered further in screening
Cork Harbour SPA [004030]	.66km	[A004] Little Grebe <i>Tachybaptus ruficollis</i> [A005] Great Crested Grebe <i>Podiceps cristatus</i> [A017] Cormorant <i>Phalacrocorax carbo</i> [A028] Grey Heron <i>Ardea cinerea</i> [A048] Shelduck <i>Tadorna tadorna</i> [A050] Wigeon <i>Anas penelope</i> [A052] Teal <i>Anas crecca</i> [A054] Pintail <i>Anas acuta</i> [A056] Shoveler <i>Anas clypeata</i> [A069] Red-breasted Merganser <i>Mergus serrator</i> [A130] Oystercatcher <i>Haematopus ostralegus</i> [A140] Golden Plover <i>Pluvialis apricaria</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A142] Lapwing <i>Vanellus vanellus</i>	Potential pathway via unmapped streams proposed for crossing by grid connection route. Watercourse discharge to the Owenboy River and Hilltown Stream each of which discharge to the Cork Harbour SPA. Site drains to unnamed watercourse to the southwest which in turn discharges to Cork Harbour SPA.	Yes

		[A149] Dunlin <i>Calidris alpina alpina</i> [A156] Black-tailed Godwit <i>Limosa limosa</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A160] Curlew <i>Numenius arquata</i> [A162] Redshank <i>Tringa totanus</i> [A179] Black-headed Gull <i>Chroicocephalus ridibundus</i> [A182] Common Gull <i>Larus canus</i> [A183] Lesser Black-backed Gull <i>Larus fuscus</i> [A193] Common Tern <i>Sterna hirundo</i> A999 Wetlands	Site within same groundwater catchment as SPA. Grassland provides potential foraging habitat for SCI species. Potential for ex situ disturbance during construction and operational phase.	
Great Island Channel SAC [001058]	6.68km	1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)	No direct impact and no identified pathways for indirect effects.	No

10.7 Identification of likely effects.

10.7.1 The applicant has submitted a Natura Impact Statement including Stage 1 screening as part of the planning application. The report by MKO Planning and Environment Consultants dated 23 July 2023. The applicant's stage 1 AA screening report was prepared in line with current best practice guidance and provides a description of the proposed development and identifies European sites within a possible zone of influence of the development.

10.7.2 The NIS submitted screens out the Great Island Channel SAC [001058] on the grounds that it is removed from the development with no pathways for potential indirect effects. I consider this to be reasonable, the Great Island Channel SAC is located 6.6km from the development site and does not have any hydrological connections to the proposed development site. Given the scale of development and absence of connectivity there is no potential for indirect effects.

10.7.4 Regarding the Cork Harbour SPA the agricultural grassland within the site provides some potential suitable foraging habitat for a number of ex-situ SCI species of the

SPA, as a result of ex-situ disturbance during the construction and operational phase of the proposed development. Cork Harbour SPA [Site Code 004030] also has a potential hydrological link to the development via unmapped watercourses to be crossed one at Ballinrea Cross and another northwest of Shannonpark roundabout. These watercourses discharge to the Owenboy River and Hilltown Stream respectively, each of which discharge into Cork Harbour SPA downstream. The permitted solar farm site, within which the proposed substation is located, is drained via an unnamed watercourse to the southeast of the site which in turn discharges downstream to Cork Harbour. Taking a precautionary approach a potential pathway for significant indirect effects on supporting wetland habitats for SCI bird species of the SPA has been identified via the deterioration of water quality arising from runoff or percolation of pollutants to surface water and/or groundwater during the construction and operational phase of the development.

10.8 Mitigation measures

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

10.9 Screening Determination

10.9.1 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 004030 Cork Harbour SPA, in view of the site's Conservation Objectives and Appropriate Assessment is therefore required.

10.9.2 The possibility of significant effects on other European Sites has been excluded on the basis of objective information. The Great Island Channel SAC [001058] has been screened out for the need for appropriate assessment. Measures intended to reduce or avoid significant effects have not been considered in the screening process.

10.10 Appropriate Assessment

10.10.1 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 Articles 6(3) of the EU Habitats Directive
- Screening the need for appropriate assessment
- The Natura Impact Statement and associated documents
- Appropriate Assessment of the implications of the development on the European Site.

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

Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site before consent can be given. The proposed development is not directly connected to or necessary to the management of any European site and therefore is subject to the provisions of Article 6(3). The following Appropriate Assessment of the implications of the proposed works alone and in combination with other relevant plans and projects will be carried out in relation to the following European site in view of its conservation objectives:

10.10.3 Screening the need for appropriate assessment.

10.10.3.1 Following the screening process. It has been determined that appropriate assessment is required and it cannot be excluded on the basis of objective information that the proposed development of the Ballinrea 110kV substation and

grid connection individually or in combination with other plans or projects will have a significant effect on the Cork Harbour SPA. The possibility of significant effects on other European sites has been excluded on the basis of objective information.

10.10.3.2 The possibility of significant effect on the Great Island Channel SAC has been excluded on the basis of objective information. Measures intended to reduce or avoid significant effects have not been considered in the screening process.

10.4 The Natura Impact Statement

10.4.1 The application included an NIS by MKO Planning and Environmental Consultants dated July 2023. The report was prepared in line with current best practice guidance and provides a description of the proposed development, its receiving environment and relevant European Sites in the zone of influence of the development. It was informed by desk top study of maps and ecological and water quality data from a range of sources and multi-disciplinary ecological walkover studies on 13, 17th and 18th July 2022, 14th October 2022.

10.4.2 No Annex I listed habitats, or supporting habitat for Annex II plant species, red listed vascular plants or flora protection order species were identified during the site visit. No evidence of any species listed on the Third Schedule of the European Communities Birds and Natural Habitats Regulations (SI N477 of 2011) was recorded along or adjacent to the proposed grid connection route.

10.4.3 The report concluded that where the potential for adverse effect on any European site has been identified, the pathway by which any such effect may occur has been robustly blocked through the use of avoidance, appropriate design and mitigation measures as set out within this report and appendices. The measures ensure that the construction and operation of the proposed development does not adversely affect the integrity of European sites. The report contends that it can be objectively concluded that the proposed development, individually or in combination with other plans or projects, will not adversely affect the integrity of any European site.

10.4.4 Having reviewed the NIS and the supporting documentation, I am generally satisfied that it provides adequate information in respect of the baseline conditions, identifies the potential impacts, uses best scientific information and knowledge and provides details of mitigation measures. I am satisfied, that the information provided is generally sufficient to allow for appropriate assessment of the development.

10.5 Appropriate Assessment of the Implications of the proposed development.

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

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

10.6 European Sites

10.6.1 The following site is subject to Appropriate Assessment

Cork Harbour SPA

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

10.6.3 A description of the site and conservation and qualifying interests / special conservation interests, including any relevant attributes and targets, are set out in the NIS and summarised in Tables 1 above and 2 below as part of my assessment. I have also examined the Natura 2000 data forms as relevant to and the Conservation Objectives supporting documents for this site available through the NPWS website. (www.npws.ie)

10.6.4 Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poul nabibe inlets. Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.

10.7 Aspects of the proposed development

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

Construction related – uncontrolled surface water silt/construction related pollution.

Habitat loss / fragmentation

Habitat disturbance / species disturbance (construction and or operational)

10.7.2 Cork Harbour SPA

10.7.2.1 The general conservation objectives for the qualifying interests of this site seeks to maintain or restore the favourable conservation condition for habitats and/or species at this site, as summarised in table 2 below. The maintenance of habitats and

species within the Natura 2000 sites at favourable condition will contribute to the overall maintenance of favourable conservation status of those species at a national level.

10.7.2.2 The proposed substation and grid connection are located entirely outside the boundary of the Cork Harbour SPA and therefore there is no potential for direct effects on the SPA. The NIS submitted acknowledges that the proposed development will give rise to a potential for indirect significant impacts on SCI species of the SPA, as a result of ex-situ disturbance during the construction and operational phase of the proposed development. There is a potential pathway for significant indirect effects on supporting wetland habitat for SPI bird species via the deterioration of water quality arising from run off or percolation of pollutants to surface and/or groundwater during construction and operational phase of the development. Excavations and earth movements during construction phase give rise to potential generation of suspended solids and potential for spillage of fuels associated with the refuelling of excavation machinery.

10.7.2.3 Cork Harbour SPA birds listed as qualifying interests for which this site is designated feed and roost within the harbour area. Changes to water quality or increases in siltation due to construction works could have an impact on the availability of suitable prey for these bird species. Changes to sedimentation levels may also affect low nesting sites. A potential pathway for indirect effects on supporting wetland habitat for the SCI bird species associated with the SPA are identified via the deterioration of water quality arising from runoff of pollutants to surface water during construction works associated with the grid connection route.

10.7.2.4 Regarding potential disturbance to bird species it is noted that during surveys conducted in relation to the Ballinrea solar farm a number of QI species were recorded within the solar farm site namely golden plover, lapwing, curlew, black headed gull. A potential pathway for indirect impacts as a result of disturbance arising from the construction phase of the substation and grid connection route was identified. While common gull and lesser black backed gull and oystercatcher were not recorded the site provides potential foraging habitat for these SCI bird species and pathway for potential indirect impact has been identified as a result of

disturbance. The site does not provide suitable habitat for little grebe, great crested grebe, cormorant, grey heron, shelduck, wigeon, teal, pintail, shoveler, red breasted merganser, oystercatcher, grey plover, dunlin, blacktailed godwit, bar tailed godwit, red shank, greenshank, and common term and therefore there is no potential for significant impacts on these SCIs via disturbance or habitat loss resulting from the proposed development. Site specific threats and pressures to SCIs were examined.

10.8 In combination Effects

10.8.1 In combination effects are examined within section 8.2 of the NIS submitted. The proposed works were considered in relation to existing and permitted development in the area. Particular reference is made to the Ballinrea and Ballinvuskig solar farms, the M28 Road Scheme and residential developments in the area. No significant effects are expected to arise from these developments and as such no significant cumulative effects are expected when considered in combination with the proposed development. In a review of plan policies and objectives including the Cork County Development Plan 2022-2028 and Cork City Development Plan 2022-2028 no potential for cumulative impact are identified. I am satisfied that the proposed development will not give rise to significant in-combination effects.

10.9 Mitigation Measures

10.9.1 A number of mitigation measures are integrated as part of the proposed development. Standard best practice environmental control measures are detailed within the CEMP. Details in relation to site set up, pollution prevention including environmental monitoring, hydrocarbon management. Water crossing mitigation are set out including timing of works, employment of ecological clerk of works to oversee cabling laying works at stream crossings. Management of cement based products and hydrocarbon management, sediment and siltation management, waste management and wastewater disposal.

10.9.2 No adverse residual effects due to deterioration of water quality during construction phase are anticipated following implementation of the measures and best practice measures. Given the project design regarding surface water run-off and foul water

no potential for adverse effects on any European site due to deterioration of water quality during the operational phase is predicted.

10.9.3 As outlined within the NIS regarding habitat loss and disturbance, or displacement of SCI species the site and sections of the proposed grid connection route provide some potential foraging habitat for a number of SCI species of Cork Harbour SPA including curlew, oystercatcher, black-headed gull, lapwing, and golden plover. Of these curlew, black headed gull, lapwing and golden plover were recorded foraging either occasionally or in relatively small numbers within the permitted solar farm site during wintering bird surveys. Lesser blackbacked gull, common gull were not recorded and the site does not provide optimal supporting habitat for these species. Other SCIs of the SPA are dependent on coastal habitats. Regarding the potential for adverse residual effects due to ex-situ habitat loss and disturbance / displacement based on the scale and nature of the site, and the abundance of this habitat in the wider landscape it can be concluded that the proposed works will not resulting significant ex situ disturbance to SCI species associated with the SPA and the proposed development will not result in any significant loss of supporting habitat or decline in population trends. Regarding wetlands and indirect pathways for significant effect including water pollution appropriate mitigation measures are in place to avoid pollution

10.10 Integrity Test

10.10.1I have considered the NIS along with the information submitted with the application and have had regard to the mitigation measures outlined. Potential for impacts to arise in relation to water quality arising from the leakage of oils and diesels or other such contaminates from construction vehicles and surface water arising has been dealt with within the mitigation measures outlined in both the NIS, and the Construction and Environment Management Plan and Construction Methodology Report. Although no significant effects as a result of disturbance to SPA species are anticipated best practice disturbance measures will be implemented. The use of best practice construction and environmental control measures have been incorporated in the design and are standard in nature and are known to be effective. I am satisfied that the mitigation measures outlined in relation to hydrocarbon contamination of

soils and waters are acceptable. Having regard to the information submitted in relation to site set up, environmental monitoring and pollution prevention, I am satisfied that the mitigation measures outlined are acceptable and will adequately prevent impacts arising in this regard.

10.11 Overall Conclusion

10.11.1I have considered the location of the qualifying interests of the Cork Harbour SPA (site code 004030) in relation to the proposed works and the existing context of the site within agricultural lands and the activities associated with such development. I consider, on the basis of the information provided with the application, including the Natura Impact Statement, and in light of the assessment carried out, I am satisfied that the proposed development individually, or in combination with other plans or projects would not adversely affect the Cork Harbour SPA 004030 in view of these sites Conservation Objectives. This conclusion is based on a complete assessment

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

Table 10.11.1 Appropriate Assessment Summary Matrix

Cork Harbour SPA. Site code:004030 Summary of likely significant effects • Water Quality deterioration • Sedimentation • Disturbance / Displacement Conservation Objectives: To maintain or restore the favourable conservation status of habitats and species of community interest.					
Qualifying Interest	Conservation Objectives Targets and Attributes	Potential Adverse Effects	Mitigation measures	In-combination effects	Can adverse effects on integrity be excluded?
[A004] Little Grebe <i>Tachybaptus ruficollis</i> [A005] Great Crested Grebe <i>Podiceps cristatus</i> [A017] Cormorant <i>Phalacrocorax carbo</i> [A028] Grey Heron <i>Ardea cinerea</i> [A048] Shelduck <i>Tadorna tadorna</i> [A050] Wigeon <i>Anas penelope</i> [A052] Teal <i>Anas crecca</i> [A054] Pintail <i>Anas acuta</i> [A056] Shoveler <i>Anas clypeata</i> [A069] Red-breasted Merganser <i>Mergus serrator</i> [A130] Oystercatcher <i>Haematopus ostralegus</i> [A140] Golden Plover <i>Pluvialis apricaria</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A142] Lapwing <i>Vanellus vanellus</i> [A149] Dunlin <i>Calidris alpina alpina</i> [A156] Black-tailed Godwit <i>Limosa limosa</i>	Conservation Objective - To maintain the favourable conservation condition of all QIs listed. Relevant Targets & Attributes Population trend - Long term population trend stable or increasing. Distribution – No significant decrease in the range, timing or intensity of use of areas by all QIs, other than that occurring from natural patterns of variation	Increase in siltation and pollution due to construction works could have an impact on water quality and could affect all QI listed. Reduced availability of aquatic prey and roosting sites. Disturbance/ Displacement	Standard best practice control measures detailed within the CEMP. Site set up. Pollution prevention, environmental monitoring and hydrocarbon management, Sediment and siltation management. Waste management and wastewater disposal.	No significant cumulative effects when considered in combination with the proposed development	Yes Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of this European site in view of the sites Conservation Objectives

[A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A160] Curlew <i>Numenius</i> <i>arquata</i> [A162] Redshank <i>Tringa</i> <i>totanus</i> [A179] Black-headed Gull <i>Chroicocephalus</i> <i>ridibundus</i> [A182] Common Gull <i>Larus canus</i> [A183] Lesser Black- backed Gull <i>Larus fuscus</i> [A193] Common Tern <i>Sterna hirundo</i> A999 Wetlands					
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11.0 Recommendation

11.1 Further to the above assessment of the application documentation, including the consideration of submissions made and including my site inspection, I recommend that the Board approve the proposed development subject to the conditions, for the reasons and considerations set out below.

Reasons and Considerations

This recommendation is being made having 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 2023,
 - the government's Project Ireland 2040 National Planning Framework,
 - the Regional Spatial & Economic Strategy for the Southern Region 2020 and
 - the Cork County Development Plan 2022-2028.
- (iv) the documentation submitted with the application, including the Planning and Environmental Report, Ecological Impact Assessment and Natura Impact Statement and the Construction and Environment Management Plan and Outline Construction Methodology,
- (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 220kV Raffeen substation on the National Grid,
- (vii) the separation distances to houses or other sensitive receptors,
- (viii) The design mitigation measures proposed for construction and operation of the site,
- (ix) the submissions on file from prescribed bodies and the planning authority, and the report of the inspector.

Appropriate Assessment Screening

The Board completed an Appropriate Assessment Screening exercise in relation to the potential effects of the proposed development on European Sites, taking into account the nature, scale and location of the proposed development, the receiving environment, the Appropriate Assessment Screening Report submitted with the application and the Inspector's report and submissions on file. In completing the screening exercise, the Board adopted the report of the Inspector and concluded that, by itself or in combination with other development in the vicinity, the proposed development would not be likely to have a significant effect on any European Site 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 be in accordance with national, regional, and local planning and related policy, would not have an unacceptable impact on landscape, ecology, cultural or archaeological heritage, would not seriously injure the residential amenities of property in the vicinity, would be acceptable in terms of traffic safety and convenience and would make a positive contribution to Ireland's renewable energy targets/commitments in relation to climate change. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Conditions

1. (a) The proposed development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further details received 10th November 2023 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 interests of Clarity

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

Reason: Having regard to the nature of the development, the Board considers it appropriate to specify a period of validity of this permission in excess of five years.

3. (a) All of the environmental, construction, ecological and heritage-related mitigation measures, as set out in the Planning and Environmental Report and other particulars, including the Ecological Impact Assessment, 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 the protection of the environment during the construction and operational phases of the development.

4. Prior to commencement of development, a detailed Construction Environmental Management Plan (CEMP) for the construction phase shall be submitted to and agreed in writing with the planning authority, generally in accordance with the CEMP report submitted with the application. The CEMP shall incorporate the following:
 - (a) A detailed plan for the construction phase incorporating, inter alia, construction programme, supervisory measures, noise, dust, and surface water management measures including appointment of a pollution prevention clerk of works, and the management, transport and disposal of construction waste.

- (b) A comprehensive programme for the implementation of all monitoring commitments made in the application and supporting documentation during the construction period.
- (c) An emergency response plan.
- (d) A traffic management plan to include 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.
- (e) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network.
- (f) Alternative arrangements to be put in place for pedestrians, cyclists and vehicles in the case of the closure of any public road or footpath during the course of works.
- (g) No tree felling or vegetation removal shall take place between the period 1st March to 31st August.

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.

5. Prior to the commencement of development a road safety audit stage 1 and 2 shall be submitted for written agreement of the planning authority and the developer shall undertake any recommendations within the road safety audit.

Reason: In the interest of traffic and pedestrian safety.

6. The developer shall comply with the transportation requirements of the planning authority and other relevant bodies for such works and services as appropriate.

Reason: In the interest of traffic and pedestrian 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 and shall be designed to minimise impacts on bats in accordance with application documentation received.

(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, protection of bats and visual and residential amenity.

8. (a) All mitigation measures in relation to archaeology and cultural heritage as set out in the Ballinrea 110kV Substation and Grid Connection Planning Environmental Considerations Report (PECR) – Archaeology and Cultural Heritage (Rubricon Heritage Services Ltd dated June 2023) shall be implemented in full, except as may otherwise be required in order to comply with the conditions of this permission.

(b) The developer shall engage a suitably qualified archaeologist (licensed under the National Monuments Acts) to carry out pre-development archaeological testing in areas of proposed ground disturbance within the greenfield portion of the scheme and to submit an archaeological impact assessment report for the written agreement of the planning authority, following consultation with the National Monuments Service, in advance of any site preparation works or groundworks, including site investigation works/topsoil stripping/ site clearance and/or construction works.

(c) The report shall include an archaeological impact statement and mitigation strategy. Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record [archaeological excavation] and/or monitoring may be required.

(d) Any further archaeological mitigation requirements specified by the planning authority, following consultation with the National Monuments Service, shall be complied with by the developer.

(e) No site preparation and/or construction works shall be carried out on site until the archaeologist's report has been submitted to and approval to proceed is agreed in writing with the planning authority.

(f) A suitably qualified archaeologist shall be retained to advise on, and establish appropriate Exclusion Zones around the external-most elements of Vulnerable heritage Assets as identified in Ballinrea 110kV Substation and Grid Connection Planning Environmental Considerations Report (PECR)- Archaeology and Cultural Heritage (Rubricon Heritage Services Ltd. dated June 2023).

(g) Exclusion zones shall be fenced off or appropriately demarcated for the duration of construction works in the vicinity of the monuments. The location and extent of each

exclusion zone and the appropriate methodology for fencing off or demarcating at each location shall be agreed in advance with the National Monuments Service and the planning authority.

(h) No groundworks of any kind (including but not limited to advance geotechnical site investigations and no machinery, storage of materials or any other activity related to construction will be permitted within Exclusion Zones.

(i) The Construction Environmental Management Plan (CEMP) shall include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development as set out in Ballinrea 110kV Substation and Grid Connection Planning Environmental Considerations Report (PECR) – Archaeology and Cultural Heritage (Rubricon Heritage Services Ltd dated June 2023) and by any subsequent archaeological investigations associated with the project. The CEMP shall clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed to protect the archaeological or cultural heritage environment during all phases of site preparation and construction activity.

(j) The planning authority and the National Monuments Service shall be furnished with a final archaeological report describing the results of any subsequent archaeological investigative works and/or monitoring following the completion of all archaeological work on site and the completion of any necessary post-excavation work. All resulting and associated archaeological costs shall be borne by the developer.

Reason: To ensure the continued preservation either in situ or by record of places, caves, sites, features or other objects of archaeological interest.

- 9 Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services. Details to be agreed with the Planning Authority prior to commencement of development.

Reason: In the interest of public health.

10. An underground sealed wastewater holding tank shall be installed on site with effluent to be removed to a licensed wastewater treatment facility for treatment and disposal at

regular intervals. Details of the holding tank shall be submitted for the agreement of the planning authority prior to the commencement of development.

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

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

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

(ii) An Leq,15 min value of 45 dB(A) at any other time. [The T value shall be 15 minutes]. The noise at such time shall not contain a tonal component. At no time shall the noise generated on site result in an increase in noise level of more than 10 dB(A) above background levels at the boundary of the site. (b) All sound measurement shall be carried out in accordance with ISO Recommendation 1996:2007: Acoustics - Description and Measurement of Environmental Noise.

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

12. The undertaker shall comply with the following requirements:

- a) No additional artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.
- b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or roads.
- c) Cables within the site shall be located underground.
- d) All fencing, gates and exposed metalwork shall be dark green in colour. The roofs of the buildings within the substation compound shall be dark grey or black and the external walls shall be finished in neutral colours such as grey or off-white.

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

13. 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.

14. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the 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.

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

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

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.

Bríd Maxwell
Planning Inspector

14th December 2023