



An
Bord
Pleanála

Inspector's Report

ABP-314320-22

Development	10-year planning permission for the construction of solar PV development on a c.129 ha site.
Location	Swordlestown North and Swordlestown South, Co. Kildare
Planning Authority	Kildare County Council
Planning Authority Reg. Ref.	22/111
Applicant(s)	Strategic Power Projects Ltd.
Type of Application	Permission
Planning Authority Decision	Grant permission (29 no. conditions)
Type of Appeal	Third Party (15 no.)
Appellants	Catriona de Robeck Kevin & Sinead Morrissey Fergal & Esther McCarthy Nessa and Ruan van Rooyen Richard and Cathy Morrissey Eugene and Fiona Doyle Brendan And Jacinta Colivet Friends of Swordlestown Little Stud

Punchestown Area Community
Company Limited by Guarantee
Evelyn Cullen and others
David & Miriam Valentine
William and Susanne Quinn
Anthony Hennessy
Aubrey & Fergal McCarthy
Dr. Desmond Leadon & Dr. Mariann
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Observers

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Aine Doyle

Deirdre and John Brett

Date of Site Inspection

05/01/2023

Inspector

Conor McGrath

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1.0 Site Location and Description

The subject site comprises an area of c.112ha located at Swordlestown North and Swordlestown South, Co. Kildare. The lands are located to the west and southwest of Punchestown racecourse, approx. 3km south of Naas. The lands are bounded by the R411 to the east and are traversed by the L2023 / Woolpack Road, running east west from the junction at Watch House Cross. A narrow local road (L20231) also runs south through the lands from the L2023.

The lands are associated with Gowran Grange Demesne and are generally in a mixture of pasture and tillage use. The proposed development site was reduced from an original site area of 129ha at further information stage following the omission of lands to the east of the R411, occupied by Dublin Glider Club. The layout of the site is irregular and divided into three development areas:

- Northern Area, to the north of the L-2023, comprising five fields under tillage. These lands fall south toward the L2023.
- Central Area, south of the L-2023 and east of the R441, surrounding Gowran Grange House. These large, open and undulating fields are predominately under tillage.
- Western Area, to the northwest and south of the L-20231. These fields are currently in use for grazing.

Field boundaries are generally mature hedgerows, with areas of mature woodland and trees in the Central Area, around the perimeter and bounding Gowran Grange House and farmyard. There are also specimen trees within the central area of the lands. Gowran Grange House was constructed in the 1850's, with access from the L2023 to the north and from the R441 to the east. The house and farmyard is excluded from the current application site boundary.

Surrounding land uses include agriculture, pasture and tillage, while there is a concentration of equine / bloodstock operations in the area, including lands immediately adjacent to the subject site. Punchestown Racecourse is located to the east, across the R411, to the south of which there is an existing airfield. There are a number of residential properties adjoining the lands on the R441 and L-20231. Two streams flow northwest through the lands, through the Central and Western

development areas, both forming tributaries of the Broadfield Stream which flows north toward Naas. Three features identified on the RMP are excluded from the development site, including a designed landscape feature associated with Gowran Grange House and two Ring Barrows on the eastern / R411 boundary of the lands.

2.0 Proposed Development

The proposed development comprises the construction of a solar PV development on a site of 112ha including:

1. The installation of 197,010 no. solar panels on ground-mounted frames.
2. 43 no. single storey electrical inverter/ transformer container units, security fencing, a CCTV system with pole mounted cameras and landscaping works;
3. The upgrading of an existing farm entrance off the L2023 to the central area and the creation of a new entrance to provide access to the Northern Area;
4. The provision of a new internal access road for c.170 m to provide access to a temporary construction compound;
5. All associated ancillary development works.

At further information stage, development on lands to the east of the R441 was omitted from the proposal, while provision for a 110kV substation was also omitted and replaced by additional solar panels and 2 no. switchgear rooms. Proposed panels will be approx. 3.2m high, mostly set at an angle of c.20 degrees, oriented to the south. Cables within the site will be laid underground. The application states that access would be over the existing grass surface around the outside and between panel arrays.

At further information stage, the applicants noted that the development would connect to the Dunnstown 400kV substation, approx. 4km southwest of the site via a underground cable to be laid in the public road. This would be subject to a separate statutory process under s.182. This application seeks a 10-year planning permission, due to the stated time required to complete the grid connection process. The operational lifespan of the solar PV development will be 35 years. The application was

accompanied by an Environmental Report and Stage 1: Appropriate Assessment Screening Report.

3.0 Planning Authority Decision

3.1. Decision

Prior to making a decision on the planning application, the planning authority sought further information from the applicants, including details in respect of the following:

- Confirmation of landowner consent.
- Details of tree / hedgerow removal on the L2023 and replacement planting.
- Revised mammal fencing details.
- Revised construction haul routes and traffic management plan.
- HGV and emergency vehicle access arrangements.
- A tree and hedgerow survey report.
- Details of sightlines at proposed entrances and surface condition.
- Exclusion of Dublin Gliding Club lands and revisions to the glint and glare assessment report in respect of aircraft operations.
- Clarification of the status of the proposed substation and grid connection application with ABP.
- Response to third party submissions.
- Submission of a fire hazard risk assessment.

Following receipt of further information, the planning authority decided to grant permission on 19/07/2022 subject to 29 no. conditions, including the following:

2. Permission to be carried out within 10 years.
3. All identified mitigation measures shall be implemented.
4. Decommissioning after 35 no. years in accordance with the submitted plan.
7. No solar panels shall be provided within 60m of recorded monuments.
9. (a) No unauthorised artificial lighting
(b) CCTV cameras not directed to the public road or adjoining property.
(c) Cables to inverter units shall be underground.

- (d) Inverter units shall be dark green in colour.
10. A post-construction glint and glare assessment shall be submitted, which shall include further mitigation where required.
 11. Sightlines at temporary construction crossing points on the R411, L-2023, L-6049 and L-20231 shall accord with TII design standards.
 17. Passing bays on the L2023 shall be surfaced to required standards.
 19. Construction Management Plan, and traffic management plan, to be agreed.
 21. The development shall not impair existing land or road drainage.
 23. Construction and operational noise control shall be in accordance with the Environmental Report and Addendum to the Environmental Report.
 24. Use of “Best Practical Means” to prevent / minimise noise and dust emissions during construction and operation.
 25. Compliance with IFI requirements.
 27. This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of such connection. No development shall take place on site until such time as consent for connection to the national grid has been received.
 28. Bond.
 29. Development Contribution of €1,291,005.05.

3.2. Planning Authority Reports

- 3.2.1. Planning: While the area is extensive, the scale is acceptable. The lands are in one ownership (in dispute) and can be accessed. They are not part of any significant ecological or landscape designation and are not on any scenic routes, views or prospects. Gowran Grange Demesne is not protected and is not on the NIAH. The area is predominantly agricultural but includes a mix of commercial, sporting and residential uses. Development plan policies appear to facilitate development on all types of lands, and the proposed development allows continued agricultural use of a different scale. The CDP seeks to protect Gowran Grange aerodrome.

The response to further information addressed the matters raised. The development as revised is acceptable and recommend that permission be granted.

AA Screening Report: No potential significant effects, having regard to distance from Natura 2000 sites, the submitted reports and assessments, and the report of the Heritage Officer.

3.2.2. Other Technical Reports

- EHO: No objection subject to conditions.
- Water Services: Condition recommended.
- Transportation and Public Safety: Following receipt of further information, no objection subject to conditions.
- Environment: Conditions recommended.
- Area Engineer: Site notice is compliant. Refer to Transport report.
- Heritage Officer: Relevant ecological surveys have been undertaken with a justifiable level of survey effort. The EIAR (sic) has adequately considered the impact on the ecological environment. The cultural heritage assessment is adequate in effort and scope. A 60m buffer around recorded monuments and archaeological monitoring is recommended.

With regard to AA Screening, a comprehensive description of the receiving environment and conditions present was provided. Cumulative impacts do not appear to have been referenced in AA Screening. Boundaries for the identification of in combination effects have been defined and justified. It has been concluded that the proposed development is unlikely to have significant effects on the conservation objectives of the qualifying interest of any Natura 2000 site either alone or in combination with other plans or projects.

Conditions recommended.

- CFO: A risk assessment of the hazards associated with a fire in or near the solar array was requested as further information. On foot of the further information response, the CFO stated that there was no objection subject to the development obtaining fire safety certificates.

3.3. Prescribed Bodies

- IAA: Advised that there were no observations from the Safety Regulation Division Aerodromes.
- IFI: Conditions recommended.
- Irish Water: No objection.
- Development Applications Unit: Conditions requiring archaeological mitigation recommended, including a 60m buffer around two recorded monuments.

3.4. Third Party Observations

The planning authority received a large number of submissions on the original application and following receipt of further information. The issues raised in these submissions are generally reflected in the issues raised in the third-party appeals and observations received by the Board.

4.0 Planning History

ABP ref. VC09.310033: Pre-application consultation request in respect of the development of a 220kV substation at the existing Dunnstown 400kV substation approx. 3.5km southwest of the site, and grid connection to this proposed solar farm at Swordlestown, via the L2023 and south via Mullacash. The request was revised during the course of the consultations, omitting the solar farm grid connection. The Board subsequently determined that the development came within the scope of s.182A and would constitute strategic infrastructure development.

PA ref. 21/608 ABP-310841-21: On appeal, the decision of Kildare County Council to refuse permission for a battery storage facility at Dunnstown, adjacent to the site of ABP-VC09.310033, was overturned.

5.0 Further Information

5.1. In considering the appeal, the Board sought further information from the first party in respect of the following matters:

- Submission of an Architectural Heritage Impact Assessment, arising from the inclusion of Gowran Grange House, its historic demesne including all historic buildings, structures and decorative features on the list of protected structures as part of the review of the Kildare County Development Plan.
- Clarification in relation to the assessment of noise impacts set out in Chapter 8 of the Environmental Report

A response to this request was received from the first party on 20/02/2023.

6.0 Policy Context

6.1. National Policy

6.1.1. Climate Action Plan 2023

Ireland is committed to achieving a 51% reduction in GHG emissions by 2030 and reaching net-zero emissions no later than 2050. Section 5.2 identifies the requirement for in the region of 22GW of renewable generation capacity by 2030. Section 5.3 *Sector Abatement Ambition*, notes that the proposed pathway includes a massive and rapid build-out of renewable generation capacity (wind and solar power generation technologies).

Key targets for electricity in Chapter 12 include up to 5GW of solar by 2025 and 8GW by 2030. Transformational policies, measures and actions, and societal change are required to meet the electricity sector's carbon budget programme and sectoral emissions ceilings. During the second carbon budget, Ireland's enormous potential for offshore wind will start to be realised. In the meantime, a major acceleration and increase in onshore wind turbines and transformation of land use from other activities such as agriculture to solar PV will be required.

A new drive for solar energy with ambitious targets will have impacts for land-use and allow farmers and communities to participate in the energy transition, through diversification of income to self-supply, and sell their own power to the grid.

12.1.4 Measures to meet the Challenge, include Accelerating Renewable Electricity Generation:

- Accelerate the delivery of onshore wind, offshore wind, and solar through a competitive framework to reach 80% of electricity demand by 2030.
- Target up to 5GW of solar by 2025 and 8 GW solar by 2030.
- In line with the emerging EU frameworks, ensure that renewable energy generation projects, and associated infrastructure, will be considered to be in the overriding public interest.
- All relevant public bodies to carry out their functions to support the achievement of the 80% renewable electricity target.

6.1.2. Climate Action and Low Carbon Development (Amendment) Act 2021

The Act commits Ireland to the objective of becoming a carbon-neutral economy by 2050, reducing emissions by 51% by the end of the decade. Section 17 amends the principle act such that Section 15(1) requires;

“(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

- (a) the most recent approved climate action plan,
- (b) the most recent approved national long term climate action strategy,
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,
- (d) the furtherance of the national climate objective, and
- (e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.

“Relevant body” means a prescribed body or a public body.

6.1.3. National Planning Framework 2018

National Strategic Outcome (NSO) 8 refers to the Transition to a Low Carbon and Climate Resilient Society. Ireland must reduce greenhouse gas emissions from the energy sector by at least 80% by 2050, compared to 1990 levels, while ensuring security of supply of competitive energy sources. The transition to a low carbon

energy future requires (inter alia) a shift from predominantly fossil fuels to predominantly renewable energy. National Policy Objective 55 promotes renewable energy use and generation.

6.1.4. National Development Plan 2021-2030

The NDP sets out investment priorities underpinning the implementation of the NPF. Chapter 13 deals with NSO 8 Transition to a Climate-Neutral and Climate Resilient Society.

Sectoral Strategies – Energy. Public capital investment choices must contribute to a 51% reduction in greenhouse gas emissions by 2030 and lay the pathway to achieve net-zero greenhouse gas emissions by 2050. This will require grid-scale renewable electricity generation and storage.

6.1.5. National Energy Security Framework (April 2022)

The Framework addresses Ireland's energy security needs in the context of the war in Ukraine. It coordinates energy security work across the electricity, gas and oil sectors. The Framework takes account of the need to decarbonise society and the economy, and of targets set out in the Climate Action Plan to reduce emissions.

Theme 3: Reducing our Dependency on Imported Fossil Fuels, focusses on three areas of work:

7.1 Reducing demand for fossil fuels.

7.2 Replacing fossil fuels with renewables, including solar energy.

7.3 Diversifying fossil fuel supplies.

Under 7.2, the statement notes that prioritising renewables is in line with the requirements of the recast Renewable Energy Directive and the EC REPowerEU action statement. The Commission has called on Member States to ensure that renewable energy generation projects are considered to be in the overriding public interest, and the interest of public safety, and the Government supports this request.

Responses include no. 25: Align all elements of the planning system to fully support accelerated renewable energy development.

6.1.6. National Energy & Climate Action Plan 2021-2030

Under the dimension Decarbonisation - Renewable energy, key objectives include:

- Achieve a 34% share of renewable energy in energy consumption by 2030.
- Increase electricity generated from renewable sources to 70%.
- Up to 1.5 GW of grid scale solar energy.

Policies and measures include increased renewable electricity generated to 70%.

Under dimension Energy Security, the key objective is maintaining security of our energy system in the most cost effective manner. This includes efforts to increase indigenous renewable sources in the energy mix (wind, solar and bioenergy).

6.1.7. Architectural Heritage Protection Guidelines for Planning Authorities.

Note: Gowran Grange House is not a protected structure for the purposes for the 2000 act, however, there are some relevant provisions in the Guidelines.

The guidelines define demesne as that part of the historic estate associated with a country house which was reserved for the personal use and enjoyment of the owner.

Section 13.2, in determining the Attendant Grounds of a Protected Structure, notes that the attendant grounds are lands outside the curtilage of the structure but associated therewith and are intrinsic to its function, setting and/or appreciation. In many cases, the attendant grounds will incorporate a designed landscape deliberately laid out to complement the design of the building or to assist in its function. The attendant grounds of a country house could include the entire demesne, or pleasure grounds, and any structures or features within it such as follies, plantations, earthworks, lakes and the like.

Section 3.4.2 notes that the contribution of setting to the character of the architectural heritage should not be underestimated. The location of a structure may have been designed to relate to a particular landscape feature. The attendant grounds around a country house were often moulded into a coherent landscaped entity in accordance with current aesthetic and economic ideas. Section 13.7 notes that developments

proposed for demesnes should respect the established planting pattern where this is part of the designed landscape.

6.2. **Regional and Local Policy**

6.3. **Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031**

The identified Regional Strategic Outcomes (RSOs) include:

9. Support the Transition to Low Carbon and Clean Energy. Pursue climate mitigation in line with global and national targets and harness the potential for a more distributed renewables-focussed energy system to support the transition to a low carbon economy by 2050. (NSO 8, 9).

Key Growth Enablers for the region include supporting rural areas by harnessing natural resources to develop renewables, recreation and tourism opportunities.

RPO 4.84 supports the rural economy and initiatives in relation to diversification, agri business, rural tourism and renewable energy so as to sustain the employment opportunities in rural areas.

7.9 Climate Change

NSO 8 is dedicated to achieving transition to a Low Carbon and Climate Resilient Society. The Strategy supports an increase in the amount of new renewable energy sources in the Region. This includes the use of wind energy, biomass, and solar photovoltaics and solar thermal, both on buildings and at a larger scale on appropriate sites in accordance with National policy and the Regional Policy Objectives outlined in this Strategy.

It is also necessary to reflect the advancements in technology, and the need to engage with, and be responsive to the needs of communities asked to host renewable energy infrastructure.

6.4. **Kildare County Development Plan 2023 - 2029**

(**Note:** The County Development Plan was adopted on 9th December 2022 and came into effect on 28th January 2023.)

Chapter 7: Energy and Communications:

Aim: Encourage and support energy and communications efficiency and achieve a reasonable balance between responding to EU and National Policies on climate change, renewable energy and communications and enabling resources to be harnessed in a manner consistent with proper planning and sustainable development

Policy EC P2: Promote renewable energy use generation and associated grid infrastructure at appropriate locations to meet national objectives toward a net zero economy by 2050.

Objectives:

EC O2: Adopt an informed and positive approach to renewable energy proposals, having regard to the proper planning and sustainable development of the area, including community, environmental and landscape impacts and impacts on protected or designated heritage areas / structures.

EC O3: Support initiatives for limiting greenhouse gas emissions through energy efficiency and development of renewable energy sources which make use of the natural resources in an environmentally and socially acceptable manner.

7.6 Solar Energy

The Council is required to achieve a balance between responding to the Climate Emergency and adhering to Government policy on renewable energy, while enabling solar energy resources to be harnessed in a manner that is consistent with proper planning and sustainable development.

In the absence of national planning guidelines for the future development of solar farms, the Council will assess the appropriateness of individual applications considering the following:

- Site aspect, suitability, and topography: favour reuse of previously developed / brownfield land, contaminated land or industrial land and non-productive agricultural land in preference to productive land.
- Biodiversity.
- Landscape character.
- Residential amenity (noise and traffic).
- Flooding.

- Architectural / Archaeological Heritage.
- Traffic impacts (glint and glare).
- Road access.
- Grid Access.
- Operations.
- Lifespan.

Section 15.11.2 *Solar Energy Proposals*, states that all solar farm applications shall have due regard to the considerations listed in above.

Policy EC P5: Promote the development of solar energy infrastructure.

Objectives EC O17 and EC O21 support solar energy development in appropriate locations, in line with the siting criteria and subject to environmental considerations

EC O24 requires a Glint and Glare Assessment for solar energy proposals, while EC O25 requires decommissioning and site rehabilitation plans.

EC O26 seeks to only permit hedgerow removal where it is necessary for the development of a solar farm(s).

Chapter 9 Our Rural Economy

Policy RD P1 supports and promotes rural enterprises and appropriate expansion and diversification, including sustainable agriculture and renewable energy, at suitable locations, where they contribute to a low carbon and resilient economy.

Objective RD O7: Supports the development of renewable energy production.

9.5 Equine

Policy RD P4 supports and encourages continued development of the bloodstock and equine industry and seek to ensure appropriate environmental conditions for equine operations, insofar as practicable.

Objective RD O15 encourages the expansion of the bloodstock industry by appropriately protecting the environment and amenity value of rural areas from encroachment by urban sprawl and incompatible development.

RD O17 Protect the ... (Punchestown)....racecourses from any development that would interfere with their amenity value and qualities.

Chapter 11 Built and Cultural Heritage

Policies AH P2 and AH P6 seek to protect and enhance archaeological sites, monuments and to protect, conserve and manage archaeological and architectural heritage.

Policy AH P7 promotes appreciation of the landscape and historical importance of traditional and historic gardens, demesnes and parks.

Policy AH P8 seeks to preserve and protect historic gardens and designed landscapes identified in the NIAH Survey of Historic Gardens.

Objective AH O47, seeks to assess demesnes and historic designed landscapes and promote conservation of their essential character, allowing appropriate re-use.

AH O51 requires that applications consider landscape impacts and demonstrate that development has been designed to take account of the landscape heritage resource.

Chapter 13 Landscape, Recreation and Amenity

The Eastern Transition Character area is identified as being of medium sensitivity. These areas have the capacity to accommodate a range of uses without significant adverse effects on the appearance or character of the landscape. Table 13.3 identifies solar energy development as being of high compatibility with this landscape character area.

Policy LR P1 seeks to protect and enhance the landscape, ensuring development retains, protects and enhances the appearance and character of the local landscape.

LR O4 refers to local landscape features, including historic features and buildings, hedgerows, shelter belts and stone walls.

LR O10 recognises that the lowlands and transitional areas are made up of a variety of working landscapes, which are critical resources for sustaining the economic and social well-being of the county and include areas of significant landscape and ecological value, which are worthy of protection. Such landscapes include the internationally recognised landscape of Punchestown and its environs.

Note: At material alteration stage of the Development Plan review process, the Council resolved to add Gowran Grange House, associated outbuildings, and

demesne to the list of Kildare County Council Proposed Protected Structures (PPS), as Material Alteration no. APS2.

Following a decision of the High Court, this property was subsequently removed from the Record of Protected Structures. Correspondence from Kildare County Council dated April 4th 2023 refers.

7.0 Third Party Appeals

7.1. Grounds of Appeal

Fifteen third party appeals have been received against the decision to grant permission for the proposed development from the following parties:

- Catriona de Robeck
- Kevin & Sinead Morrissey
- Fergal & Esther McCarthy
- Nessa and Ruan van Rooyen
- Richard and Cathy Morrissey
- Eugene and Fiona Doyle
- Brendan And Jacinta Colivet
- Friends of Swordlestown Little Stud
- Punchestown Area Community Co. Limited by Guarantee
- Evelyn Cullen and others
- David & Miriam Valentine
- William and Susanne Quinn
- Anthony Hennessy
- Aubrey & Fergal McCarthy
- Desmond Leadon & Mariann Klay

There is broad overlap in the issues raised, which are summarised together below.

Procedural

- The public notices do not adequately describe the development and were not legible from the public road. Notice no. 9 was in the incorrect position.

- The development is premature pending definition of substation and grid connection proposals.
- Defects in the submitted drawings render the application invalid.
- There are no sections of the construction compound or substation site, or details of the extent of excavation or associated vehicle movements.
- The tree survey is illegible and doesn't include trees surrounding Gowran Grange.
- There was no entitlement to submit revised site plans, omitting glider club lands or replacing the substation with solar panels and additional switchgear rooms.

Consent

- The application was invalid due to the failure to obtain consent of all landowners of Gowran Grange Demesne.
- Landowner consent for work under conditions no. 1, 11 and 19 has not been obtained. Entrances 2a and 2b affect lands in third party ownership.
- Condition no. 22 requires works on the public road in 3rd party ownership.
- There is no evidence that the applicant is a statutory undertaker, as defined.
- There was no consultation or engagement with local landowners or stakeholders.

EIA / Project Splitting

- The failure to describe the grid connection precludes adequate AA or EIA screening or cumulative assessment. Regard should be had to Schedule 7 criteria.
- This is contrary to the O'Grianna judgment and development plan requirements. Permission should be refused similar to the PA decision in 21/608. (ABP-310841)
- A cumulative assessment should also consider the substation and battery storage facility at Dunnstown.
- Such rural restructuring requires EIA under the EC (EIA)(Agriculture) Regs 2011.
- UK guidance indicates that significant environmental effects require EIA.
- EIA screening did not consider CFO requirements for site access roads.

Location and Landscape Character:

- The excessive scale of development and impact on rural landscape character is contrary to development plan landscape policy.
- The implications of the 10-year life of the permission were not assessed.

- There is no national policy for site selection and the development does not follow development plan siting requirements (Policy SE2).
- The haphazard location for this speculative project is unrelated to local need or grid connection agreements, contrary to practice in the UK and Germany.
- This location, within a hub for the equine industry, proximate to aviation uses, in an historic demesne on a pathway to Natura sites is inappropriate.
- There is no justification for the loss of prime agricultural lands.
- The development will impact on development plan scenic routes.
- Visual impact on adjoining residents. Existing hedges will not screen the development and proposed planting will take 20 years to mature.
- Permission for solar farms was previously refused on visual grounds in Kildare under ABP-249348 and Wexford under ABP-248364.
- The LVIA does not consider associated infrastructure including substation, overhead lines and grid connection or loss of hedgerows.
- Impact on visitor numbers and jobs in the Punchestown Destination Area.
- A 3rd party independent LVIA predicts a high magnitude negative effect.
- Imagery does not reflect the overwhelming scale or impact of the development.
- Further assessment from the eastern uplands / Mullaclash Hill is required.
- A TPO should be designated for the overall lands.
- There will be significant tress loss and further tree removal may be required to obviate shading of cells and future damage from falling trees.
- Any return to agricultural use will be a considerable time in the future and any on-going agricultural use will be low intensity.
- The need for renewable development must be balanced with the need to protect agricultural lands, visual and residential amenities.

Ecology

- The development will result in a loss of biodiversity in this rural area.
- The PA made no reference to the observer's independent Ecology Report.
- The AA screening does not consider the totality of the project and the absence of effects cannot be determined.
- There is conflict with regard to the presence of designated species on the site.

- The AA screening fails to identify a pathway to the River Liffey which hosts Annex II species. White-clawed crayfish are found in streams on site.
- The assessment of watercourses and aquatic habitats was inadequate. Broadfield Stream is misleadingly referred to as a drainage ditch.
- The Habitats Directive requires the protection of species where they occur, and streams crossing the site should be protected as a European site.
- In pre-application consultations at Dunnstown, the Board advised of the need to consult with NPWS and IFI.
- Tree loss and management will result in significant biodiversity impacts. The embodied carbon loss is not assessed.
- An inverter is proposed adjacent to a badger sett in the Central Area.
- No bat or mammal surveys were undertaken and bird surveys were misleading.
- Loss of grassland and winter stubble will impact red and amber listed bird species.
- The development is contrary to development plan policy CS14 to promote and enhance biodiversity.
- There is potential for construction and operational contamination of ground and surface water.
- A wetland area close to Area West 3 is of local conservation value. The previously identified grid connection route traversed such wetland.

Water and Drainage

- There was no assessment under the Water Framework Directive. The EPA assess the stream within the site as being of Good Status, at risk.
- The drainage / flood assessment was inadequate. There are issues with run-off adjoining Watchhouse Cross.
- There is no detail of operational maintenance of grass / vegetation, which is a drainage mitigation measure.
- The site is located within the study area for Naas Flood Relief Study and a revised flood risk assessment should be undertaken.

Impact on adjoining bloodstock / stud farm uses

- This development would result in disturbance of highly sensitive equine and foaling activities, materially contravening development plan policy to promote the equine industry and protect its environment from incompatible development.

- It is government policy to support the internationally regarded equine industry, while the NPF contains objectives to strengthen rural fabric and communities.
- There was no assessment of impacts on the equine industry and associated economic effects.
- Any impacts on Punchestown Racecourse must be carefully considered.
- ABP have previously refused developments on the basis of impacts on bloodstock and horse racing interests.

Noise

- The baseline noise environment is not adequately described, and the area should be classified as a Quiet Area as per EPA Guidance.
- BS5228-1 is not appropriate for a Quiet Noise Area and reliance on a CEMP to be agreed is not appropriate.
- Failure to protect the existing noise environment is contrary to the EC Directive on the Assessment and Management of Environmental Noise.
- The siting of inverters does not avoid local noise impacts.
- The development will result in noise and disturbance to adjoining stud farms and residents, with a risk to horses and staff.
- The noise sensitivity of horses is not addressed.
- The construction methodology for ground spikes has not been defined, and boundary fencing works will also have noise impacts.
- Horses are sensitive to ground vibration which is not assessed. The description of separation distances is inaccurate.
- Construction noise will exceed WHO guidelines and cannot be dismissed as temporary.
- Conditions no. 23 and 24 are unenforceable and do not provide relevant emission limit values.
- The assessment ignores potential wind induced noise through the array and low frequency noise or intermittent noise impacts.

Residential Amenity

- Property devaluation due to proximity to the proposed development.
- Potential privacy impacts from operational CCTV and drone inspections.

- Previous ABP inspector reports have recommended separation of 100m from houses. Separation should be increased if permission is granted.
- There was a lack of consultation with the local community.

Health

- There are potential unknown health risks from such development.
- Potential EMF emissions from inverters are a concern.
- Silica particles from damaged panels present a health risk.

Fire

- The high level of fire risk is evidenced by events in other solar farms.
- The significant number of inverter units poses a risk of noise and fire.
- The fire risk assessment was inadequate and should consider the risk to maintenance personnel and the dangers to Emergency Services.
- There are no emergency fire access roads. An estimated 10km of internal roads are required given the ground conditions, in excess of the thresholds for EIA.
- The CFO should provide evidence on the requirement for fire access.
- The relevant construction and operation standards are not referenced.
- There is a risk of fire spread to or from adjoining properties and structures.
- There is also a lack of an on-site water source.
- No assessment of major accidents or disasters was undertaken. The potential impact of storm events should be considered.
- The air quality impacts of a fire event would be a significant risk for racehorses.

Roads and Traffic

- The road network is not adequate to serve the development and construction traffic movements were not adequately considered.
- TII should have been consulted.
- The L20231 is unsuitable for large traffic volumes. Landowner consent to achieve adequate sightlines has not been obtained.
- No drawings or design details of entrances to West Area 2 & 3 are provided.
- There is a new unidentified entrance proposed to area no. 3.
- Construction activity would block the L20231 and prevent access for residents or for stud farms which require 24/7 uninterrupted access.

Glint and Glare

- The assessment of glint and glare effects on residential properties to the east and southwest and road safety, particularly at Watch House Cross was inadequate.
- Further detailed analysis of the 45 affected properties is required. House H35 will be impacted by glint and glare post-mitigation.
- The photomontages do not accurately reflect the effects.
- There is no acknowledgement of impacts on bloodstock activities and resulting reputational damage.
- Screen planting will not be effective due to the topography of the site.
- Longer views from the Eastern Uplands and aviation effects were not assessed.
- Effects on protected species or birds were not assessed. No bat survey was undertaken.
- The assessment is not based on objective research.

Aviation / Gliding Club

- Glint and glare will impact on the operation of the gliding club.
- Development will result in the loss of suitable lands for emergency landings.
- The development is contrary to development plan policy regarding aircraft navigation in the vicinity of established aerodromes.

Cultural Heritage

- The development would negatively impact on the historic demesne landscape of Gowran Grange, included in the NIAH and which may be included as a PPS.
- There is no report from the Planning Authority Conservation Officer and the application was not referred to An Taisce.
- The ad hoc site boundary has been carved out of the historic demesne.
- The development is contrary to development plan policy relating to Country Houses and Demesnes. No heritage impact assessment was undertaken.
- The Draft Development Plan may also designate the demesne as an environmental steppingstone.

Decommissioning

- Bond condition no. 28 is unspecific and unenforceable and does not relate to the real cost of decommissioning or disposal / recycling implications.

- The decommissioning plans are deficient and fail to restore lands to agricultural use. An enforceable decommissioning plan is required.
- Failure to comply with the Waste Directive in relation to the final disposal of PV panels, inverters and batteries. There are no commitments to recycling.

A number of the appeal submissions were accompanied by supplementary reports and assessments, including inter alia the following:

- A Landscape and Visual Impact Assessment – Cunnane Stratton Reynolds
- A report on the historical significance of Gowran Grange.
- A review of Biodiversity Aspects of the application – Dr. Mary O’Connor
- A number of Engineering reports - various
- A review of the Fire Risk Assessment and other documentation on fire risk at solar energy developments – Phoenix Fire Safety.

7.2. Planning Authority Response

No comment to make on the appeal by Catriona deRobeck.

7.3. Further Responses

Submissions from Brendan and Jacinta Colivet and from Friends of Swordlestown Little Stud were received in response to the other third-party appeals. The points raised are summarised as follows:

- The development is incompatible with adjacent equine operations and materially contravenes development plan policies for protection of the equine industry, siting of solar energy development, landscape, cultural heritage and aircraft navigation.
- Prematurity pending details of the grid connection and substation.
- Screening and EIA and AA was flawed.
- The use of prime agricultural lands is contrary to development plan siting criteria.
- The road network is not capable of accommodating construction traffic.

- Fire safety has not been adequately addressed.
- Amenity and devaluation impacts of noise, glint & glare and construction traffic.
- Extensive landscape and visual impacts due to the scale and location of development. The impact of the loss of trees should be considered.
- The sloping nature of the lands is such that screen planting will not be effective.
- Effect on Gowran Grange House and historic demesne
- Glint and glare effects on traffic safety on adjacent roads.
- Potential impact on safe operation of adjacent aviation facilities.
- Final disposal of panels in accordance with the Waste Directive is not considered.

7.4. First Party Response

The first party response to the appeal by Catriona de Robeck, including letters from the applicant's solicitors, makes the following points:

- No grounds of objection against the proposed development are raised.
- It is not the role of ABP to interrogate issues of title or family law disputes.
- If awarded ownership, the appellant may block development of the lands.
- The appellant has not provided evidence of their interest in the lands.
- The Development Management Guidelines note that permission can be granted having regard to s.34(13), notwithstanding a dispute over ownership.
- Even if the appellant is a beneficial owner, the current owner can still be the legal owner of the lands.
- At time of lodgement of the applicant, the current owner consented to the application, which was therefore valid for the purposes of art. 22(2)(g).

In response to other third-party appeals, the first party make the following points:

- The development was subject to pre-planning consultations with the planning authority and the local community.
- In respect of AA screening, it is noted that extensive works at the racecourse under ABP-306929-20, were previously screened out by the Board.

- The Planning Officer and Heritage Officer concluded that there was no requirement for EIA or AA in this case.
- No internal or external consultees objected to the development.
- The validity of appeals by Friends of Swordlestown Little Stud, Punchestown Area Community Group and Punchestown Community CLG is queried.
- There are no unique issues arising which warrant holding an oral hearing.
- The planning authority validated the application, and it cannot be invalidated.
- The development description complies with the regulations. There were no protected structures on the site at time of lodgement.
- Lands used by the gliding club have been omitted from the development.
- While compliance with condition no. 11, between areas 2 and 3, is not achievable, sightlines can be achieved at all other locations.
- The L20231 is lightly trafficked and serves houses and agricultural machinery.
- Access can be safely accommodated using a banksman with no interference with 3rd party lands. Alternatively, new entrance gates could be constructed.
- The lands outlined in blue are confirmed to be in the applicant's ownership.
- The applicant is a statutory undertaker and landowner consent is not required to lay cables in the public road.
- The lands are not affected by any rights of way.
- The planning authority had regard to relevant National and European policy. The draft CDP will not significantly alter renewable energy policy.
- There will be no loss of lands used for the equine industry or impact on adjoining operations, which would materially contravene development plan policy.
- The planning authority had due regard to policy supporting the equine industry.
- Referenced history cases were not refused due to loss of agricultural lands.
- Site selection was influenced by proximity to the grid, the absence of suitable alternative brownfield or degraded lands, the extent, availability and quality of the site as depleted agricultural land.
- No technical evidence regarding deficiencies in the AA process or downstream impacts on protected White Clawed Crayfish is provided.
- All hydrological connections were investigated. There is no pathway to the River Liffey and the nearest record of White Clawed Crayfish is >4km from the site.

- The development is not a class under Schedule 5 and does not require mandatory or sub-threshold EIA.
- The scale of development is not untypical of permitted solar developments.
- There is no evidence of impacts on horses from proximity to solar farms.
- The 12-month construction timeframe will not occur in one location continuously.
- Temporary construction activity will have no significant effect on the equine industry and in many cases have less effect than agricultural activity.
- The draft development plan supports a range of activities in rural areas, including energy production, requiring a balance between the needs of both sectors.
- Compliance with Objective RD02 will ensure protection of the environment and the bloodstock industry.
- Other referenced stud farms in the area have not appealed the decision.
- Mature trees and field boundaries minimise visual impact and perceived scale.
- Tree loss has been minimised, primarily involving felling of trees subject to ash dieback, with improvements to road safety. The lands will be well screened,
- Field boundaries / internal hedgerows will be retained. Replacement planting is of a better quality and longer life expectancy with ecological and landscape benefits.
- The *Boundary Tree and Hedgerow* report identified works for good arboricultural practise and to facilitate access.
- The Heritage Officer has confirmed that the development will not unacceptably impact on the setting of the Gowran Grange house or curtilage.
- The listing of the demesne lands beyond the curtilage of the main house on the RPS would not be appropriate.
- The development is reversible and will generate an income to maintain the house.
- There will be no change to the L20231 or future greenway on the Tullow Railway.
- A Comprehensive LIVA was prepared by recognised experts.
- Comprehensive ecological assessments were undertaken by experienced professionals. No wetland habitats were recorded within the site.
- Works will comply with NRA guidelines with buffer zones around badger setts.
- There will be enhancements to habitats and biodiversity relative to current intensive agricultural use. Ecological connectivity and pathways will be maintained.
- Renewable energy generation and grazing by small livestock is an efficient use of lands, which can revert later to current agricultural use.

- The lands have been used predominantly for growing grass in recent years.
- Solar arrays will not impact on surface water infiltration, where grass is maintained across the site.
- The FRA concluded that the site was not at risk of flooding.
- There will be no loss of suitable bat roost sites, while foraging and commuting habitats will be improved.
- No Natura 2000 bird species or wetland / water birds were identified.
- A detailed glint and glare assessment was undertaken, including an assessment of impacts on aircraft / the airfield. IAA raised no objection.
- Recorded monuments will remain unaffected by the development.
- Existing agricultural vehicular movements will reduce / cease post-construction.
- Construction traffic will not add significantly to traffic on the wider road network.
- Sightline improvements on the L2023 occur on lands in the applicant's control.
- Inverters are the one operational element to generate limited noise emissions and are located away from sensitive receptors.
- Installation of ground spikes is unlikely to give rise to vibration emissions. Activities will comply with BS5228-2.
- Design, layout and screening will mitigate impacts on residential amenity.
- There will be no impact on tourism or on the area as a destination.
- Other local stakeholders consulted have not appealed the decision, including the Hunt Club, Punchestown racecourse and Gliding Club.
- The underground grid connection to Dunnstown substation will be subject to a separate application and screening. The provisions of s.34(13) are relevant.
- There is no question of project splitting in terms of EIA.
- No external lighting is proposed. Camera or drone use will not impact on residential amenity or privacy.
- There is no evidence to support claims of property devaluation.
- There is no health risk due to the low level of EMF emissions and separation from adjoining properties. Panels are designed to be safe and weather resistant. They and will contribute to reducing air pollution and climate change.
- A response to the third-party Fire Safety Report is submitted. The developer is separately required to comply with the requirement of the CFO.
- No major risk assessment is required.

- A decommissioning plan was submitted. Condition no. 28 requires payment of a bond. Waste regulations will be adhered to.
- The PA had due regard to all submissions received.
- The final MW output could vary with technology specifications. A development contribution condition could allow a final figure to be calculated once known.

An accompanying Technical Note from TLI Group supports the previously submitted *Fire Risk at Ground Mounted Solar Farms*, Technical Note. The proposed layout is stated to be acceptable for the following reasons:

- The fire safety cert application is in accordance with building control guidance.
- The substation building complies with Technical Guidance in relation to site access and separation distances to boundaries.
- The solar array does not require a fire safety certificate, however, access and separation is in accordance with current technical guidance and best practise.
- Risk of fire is very low and provisions are in place to allow the fire department to manage such an event.
- The array will be monitored and maintained in accordance with industry standard and is an accepted renewable energy technology worldwide.

8.0 Further Submissions

8.1. Comments on First Party Response to Appeals

Following a decision to consider the appeal without an oral hearing, the first party response to third party appeals was circulated to all parties for comment. A large number of submissions were received which generally reflect the points made in the third-party appeal submissions. I note in particular the following additional points:

EIA

- The applicant's EIA Screening assessment was deficient. The inclusion of private roads requires assessment under the Schedule 7 criteria.
- Omission of the grid connection constitutes project splitting.

- The assessment of cumulative effects does not consider development at Dunnstown sub-station or battery storage facility proposed by the applicants.
- EIA screening did not have regard to the proposed protected status of Gowran Grange or the biodiversity impacts of the development.

Landscape

- The development will set a precedent for similar development in the landscape.
- Permission should be refused in line with the precedent of PL26.247886 given the sensitive landscape and quality of agricultural land.
- The landscape will be changed to industrial character. The third party (Cunnane Stratton Reynolds) report confirms the landscape impact of the development.
- The photomontages understate the visual impact of the development.
- The extent of tree removal and surgery is understated.
- Swordlestown Lane / L20231 is a local amenity and should be preserved.
- The assessment of landscape and tourism impacts is deficient.
- The impacts on the setting of Gowran Grange Demesne are contrary to development plan policy.
- Screen planting proposals are deficient and will take many years to mature.
- There will be significant impacts on views and glint and glare impacts on surrounding houses and road users.
- The response does not consider views from local roads and elevated areas.

Location

- The loss of productive agricultural land is not justified.
- Climate policy should not over-ride other policy considerations, i.e. biodiversity.
- Policy in the UK directs development away from prime agricultural land, while EU policy does not promote renewable energy at the expense of other activities.
- The development plan site selection criteria are not met.
- Grazing will not continue during operation as grass cannot grow under panels.
- There is no prospect of a return to agricultural use.
- There was a lack of community engagement on this project.
- The development plan seeks community benefits from renewable energy development, which is not achieved in this case.
- A ten-year permission for development with a 35-year life is excessive.

Equine

- The assessment of noise and vibration impacts on horses was inadequate.
- The applicants' agents do not have the knowledge or expertise to reach conclusions regarding impacts on adjacent equestrian facilities.
- The economic impacts on surrounding equine activities and the wider community have not been considered.
- The development materially contravenes development plan policy to support and protects the equine industry, and objectives RDO15 and RDO19.
- There is precedent to refuse permission to protect the industry from incompatible development.
- There are ample alternative locations available.
- Noise exposure, particularly during construction, places horses and their handlers at risk. Noise thresholds for horses are much lower than humans.
- Construction dust and potential fire hazard are also of concern.
- Health and safety require that access along the L20231 remain unobstructed by construction or other traffic and activity.
- EMF health risk to horses has not been addressed.

Noise

- Inverters should be sited away from property boundaries.
- Construction noise would be significantly greater than normal agricultural activity.
- There are deficiencies in the assessment of construction noise.
- Relevant construction noise standards (BS5228) and WHO guidance will be exceeded at adjoining residential properties.
- Both continuous noise levels and the number of events needs to be considered.
- Proposed noise mitigation measures are inadequate.
- No assessment of horses or sensitive horse infrastructure was undertaken.
- Noise at a major race meeting is not an appropriate comparison for stud operations.
- What actions can the site representative take where complaints arise.
- Noise surveys were deficient and are not an adequate basis for the noise assessment.
- Identified noise receptors do not represent the full extent of adjacent properties.

- Vibration from perimeter fencing impact piling should have been assessed.

Biodiversity

- There will be significant loss / impacts on trees, while site works may impact the health and stability of adjoining mature trees.
- Potential shading of the panels by mature trees may require further tree loss.
- The site and its surroundings are used by a QI of Poulaphouca SPA and the AA screening conclusions are deficient.
- The designation of the site as an ecological steppingstone was not considered.
- Bird surveys and impact assessment was deficient, including inaccuracies in the conservation status assigned to recorded species.
- Habitat and species surveys were deficient, given third party evidence of relevant species and habitats. No bat or roost surveys were undertaken.
- White tailed crayfish and otter were observed 500m downstream, with previous sighting further upstream. Other protected species include pine marten.
- Connectivity via Broadfield stream to the Liffey is confirmed. IFI highlighted the sensitivity of water courses in the Liffey catchment.
- Impacts on aquatic habitats and species were not adequately assessed.
- There is a risk of contamination reaching Natura Sites via Swordlestown Stream.
- Birds such as Yellowhammer (red-listed) forage on winter stubble. Land use change or habitat fragmentation was not considered.
- A solar farm is not required for net biodiversity gain and the habitat impacts of solar development are well documented.
- Wildflower meadows risk the introduction of invasive species. Along with wildlife shelters they are not compatible with sheep grazing.
- Reduced grass cover under panels may increase surface water run-off.
- Based on local knowledge, there is no set-back from badger setts on the site.
- Use of the historic cottage at access 2b by swallows and bats was not assessed.
- Until the grid connection is finalised, biodiversity impacts cannot be determined.
- Not all statutory designated sites were considered, including Harristown pNHA, or habitats recorded in the Wetland Habitat Survey of Co. Kildare.
- The developer must comply with relevant legislation regarding the protection of water quality.

Cultural Heritage

- The industrial development will have an adverse effect on Gowran Grange.
- A process to relist Gowran Grange as a protected structure is underway.
- There are alternative means to fund the upkeep of the main house.
- Loss of trees will impact on the historic demesne.
- The conclusions of the appellant's landscape heritage report (by Claire McDonald - appended) shows that views over the wider demesne were intended to be enjoyed by residents and are at odds with the applicants Heritage Report.
- Heritage assessments did not consider the historic farm cottage at access 2b.

Fire / Health and Safety

- The assessment of fire risk is inadequate and did not consider access requirements or logistics of fire-fighting.
- The requirements of the CFO should be met.
- Inverter units present a fire risk and are sited close to property boundaries.
- The road network serving the site cannot accommodate emergency / fire access.
- A copy of a submission from fire safety consultants accompanies submissions.

Ownership

- The applicant does not have the consent of all registered / beneficial owners. S.34(13) is not relevant to an invalid application.
- The lack of legal interest is an issue for the de novo consideration of the appeal.
- There is no consent to achieve required sightlines at proposed crossing points along the L20231. Condition no. 11 is unenforceable.
- The applicant does not have the right to claim the power of a statutory undertaker to lay cables within the L20231.
- The entrance to Area 3b is in third party ownership.

Validity

- The application was invalid as the development description was inadequate, and due to issues with the public notices.
- The failure to notify prescribed bodies was a fundamental error.
- The lack of consent should also have also rendered the application invalid.
- Attempts to invalidate the appeals should be rejected.

- The site notice at Area 3 is incorrectly located and a new entrance at this location is not described in the application.

Roads and Traffic

- The local road network is not suitable for the volumes of construction traffic and the assessment of traffic impacts was inadequate.
- Any planting near Watch House Cross could interfere with sightlines.
- Use of a banksman will not facilitate movements along the L20231 or address sightline requirements (condition no. 11).
- Unimpeded access along the L20231 is required by residents and occupiers.
- There would be road safety impacts from glint and glare effects. There is no consultation with TII. A 1km buffer for glint and glare assessment was previously recommended.
- L20231 is not a cul-de-sac. There is access for farmers and recreational users.

Flooding / drainage

- Downstream flood risk has not been addressed.
- The run-off rate will be increased, resulting in downstream flooding.
- The development plan requires a specific flood risk assessment for solar developments in Flood Zones A / B.

Aviation

- Impacts on gliding club / aviation activities due the loss of lands for emergency landings and the use of drones, contrary to development plan policy.

Residential Amenity

- Separation from residential properties should be increased.
- Community engagement was deficient.
- Documentary evidence of property devaluation effects has been provided.
- There will be significant visual impacts on adjacent dwellings.
- Use of drones on the site would impact on residential amenity / privacy.

Materials and Decommissioning

- A satisfactory decommissioning plan should be provided.
- A sufficient bond to cover the disposal or recycling of panels should be provided.

- Compliance the Waste Directive for final disposal of solar panels is required. Ethical concerns regarding the source of panels should be addressed.

Accompanying submissions include:

- Grange Gowan Demesne: historic designed landscape, Claire McDonald
- An Overview of Streams and Rivers connected with the application site (Susan Quinn).
- A copy of report from CK Fire Engineering Ltd. (02/05/2023)
- Review of Biodiversity Aspects, Dr. Mary O'Connor

9.0 Observations

22 no. observations on the appeal were received from the following parties. I note that one further observation received was subsequently withdrawn (John Conroy).

1. Punchestown Home Owners Association.
2. Concerned Residents of Punchestown
3. Donal Knight
4. Treasa and John Nangle
5. Áine Doyle
6. Deirdre and John Brett
7. Annemarie Doody
8. Mary Flaherty and Brian Giblin
9. Fergal and Ann Coultry
10. John and Joan O'Reilly
11. Ann Neary Brennan
12. Orla O'Connor and Ger Morrin
13. Paul and Siobhan Faughnan
14. Dr. Mary O'Connor
15. Irish Thoroughbred Breeders Association
16. Patrick Burns
17. Simon and Fiona Parker
18. Denis and Anne-Marie Cullen
19. Noel Cawley
20. Philip O'Reilly
21. Hugh Dillon
22. Deirdre Nolan

Issues raised in the observations generally reflect the issues raised in appeal submissions and are summarised together below:

- A third-party landscape and visual impact assessment concludes that the development will have significant impacts contrary to the draft development plan.
- Such industrial development is unsuitable for this rural landscape.
- Potential impacts on the development of a greenway on the old railway.
- Screen planting will take years to mature. Proposed interim wind netting is unattractive and has not been demonstrated to mitigate glint and glare.
- The development will result in glare, noise, dust and traffic impacts.
- There is evidence of the devaluation effects of solar developments.
- Construction traffic will impact on the L20231. Permission has previously been refused on this lane on traffic grounds.
- A fire risk assessment by a qualified expert has not been submitted.
- The lack of any internal roads and water will create difficulties for emergency fire access. The L20231 is not adequate to provide emergency access.
- The Draft Development Plan includes Gowran Grange as a Proposed Protected Structure. The development will impact on its heritage character, which is recognised in the NIAH.
- The third-party ecological report describes this as a site of high value, which is supported by its development plan designation as an ecological steppingstone.
- There will be loss and modification of a significant number of trees and impacts on wildlife and ecology, during a biodiversity crisis.
- Ecological surveys and assessments were inadequate.
- AA screening makes no reference to Lesser Black Backed Gull a qualifying interest of Poulaphouca SPA, which uses the site and its hinterland.
- The Environmental Report does not consider all designated sites within 5km or recorded wetland habitats. The assessed zone of influence is inadequate.
- The list of Birds of Conservation Concern used by the applicant ecologists was out-of-date. Many red listed bird species in the area are not identified.
- Impacts on salmonids were not assessed notwithstanding a pathway to the Liffey. The presence of freshwater crayfish in the Broadfield River is not acknowledged.
- TII were not consulted on the traffic impacts of the development.

- The lack of information on the proposed grid connection is contrary to draft development plan policies and the O’Grianna judgement.
- A detailed drainage and flood assessment was not undertaken.
- The draft development plan requires decommissioning plans for solar farms.
- Security is required to ensure satisfactory decommissioning of the site.
- The development would set a precedent for further such development in the area.
- Zoning or landscape policies does not support this development.
- The loss of productive agricultural lands is inappropriate. The land will not revert to agricultural use on decommissioning.
- Status as a statutory undertaker has not been established.
- There is a lack of clarity with regard to land ownership.
- The description of development in notices was inadequate. Site notice no. 9 is in the incorrect location.
- Gliders have previously conducted emergency landings into the site.
- The development materially contravenes development plan policy to support and to protect the nationally important equine industry from incompatible development.
- The development will negatively impact adjacent established stud farms due to noise, dust, fire hazard and insurance. Longer term construction works are not compatible with equine activities.
- The developers are not qualified to assess impacts on equine receptors.
- ABP previously refused permission for a biogas / biodiesel plant on the basis of impacts on the equine industry (PL23.225138).
- Under PL92.247190 it was considered reasonable to have regard to policy protecting the equine industry.
- Stud operators are currently advised of adjacent agricultural activities, to facilitate short-term measures to avoid impacts on horses.
- There is currently no guideline separation distance from horse farms.
- Renewable energy development should not over-ride other considerations.

Expert Report

- Horses have profound and intense reactions to noise and lower noise thresholds than humans. Noise anxiety for horses is a significant and growing issue.
- Light flashes and unknown odour also induce fear reactions.

- Anxiety creates a risk of injury to those working with horses.
- Horses are particularly sensitive to inhalation of dust. Particles released from fire damaged panels can be toxic.
- Fire events and associated smoke emissions could induce fear reactions.
- Structures and stores associated with stud farms are at risk of fire spread.
- Adequate access is required for firefighting.
- Stud farms require 24/4 access which will be obstructed by construction traffic.
- Firewater run-off can contain contaminants.
- Location adjacent to a solar farm may impact on stud farm insurance cover.
- The combination of impacts will result in the closure of adjacent stud farms, as horses are withdrawn.

10.0 Further Information

10.1. First Party Further Information Response

An Bord Pleanála sought further information from the first party on 24/014/2023, and a response was received on 20/02/2023, which was circulated to all parties on 14/04/2023. The first party response to the request is summarised below:

Cultural Heritage

The response was accompanied by an Architectural Heritage Impact Assessment report from a Historic Building Consultant and a set of photomontage images. A letter from the applicant's solicitors in support of the application is also received.

Points raised in the AHIA include the following:

- Gowran Grange House was constructed 1850-1870, and is not included in the NIAH. Inclusion in the NIAH Garden Survey was based on a desk-top study only.
- The farmland layout pre-dates construction of the house and does not reflect a designed landscape. Only a small portion of the demesne lands could be considered a designed landscape.
- Following construction of the house, planting was undertaken to enclose and conceal it from, rather than to facilitate views over, surrounding agricultural lands.

- The development ensures the protection of trees and hedgerows within the demesne and designed landscape around the house with additional planting.
- There will be minimal views of the solar farm from the house and outbuildings.
- There is an important distinction between a demesne and a designed landscape.
- The draft development plan does not identify the extent of lands within Gowran Grange demesne to be protected.
- Lands to the west and north of L2023 Woolpack Road do not contain any element of designed landscape and have no historic character.
- Area 4 will not impact the character or setting of the house.
- Area 5 will have limited visibility from the house to the south and west. The nearest part of the development is 165m west and 100m south of the house, with intervening planting. Views will be of the side or rear of panels which will reduce visibility, and no significant impacts are likely.
- Visibility will not increase significantly during winter / periods of less screening, and further planting could be subject to condition if considered necessary.
- There will be no impact on associated features due to existing screening. Given its function and form, there will be no adverse effect on the lime kiln.
- The existing northern entrance gates were constructed in the 20th C. There will be no significant intrusion on the character of the driveway.
- While there will be a significant change to the lands, there is a requirement to foster renewable energy and the lands will continue in use for grazing.
- Income from the development will facilitate upkeep of the house and outbuildings.
- The development is temporary and reversible, in line with conservation policy. It will not impact on any features of special interest as defined in s.10(2)(f).

Noise Impact Assessment

The response was accompanied by a technical Note by MOR Environmental.

- a) The response confirms that hydraulic piling for fence construction was modelled, while rotary piling was presented for solar frame construction, with sound pressure levels based on published guidance.
- b) The noise assessment considered the operation of one machine / crew operating in the vicinity of any residence at any one time. Minimum separation distance (min 32m) between crews will ensure that no significant cumulative impact arise.

- c) Typical solar frame installation uses rotary piling. Typical sound pressure values for piling are 75-77dB LAeq at 10m respectively.

Exceedance of the construction noise limit is predicted at nine sensitive receptors the site boundary, based on the ABC approach set out in BS5228. This is based on separation distance from site boundaries rather than from solar frame locations which would be greater. This also assumes the use of impact piling, as a worst-case scenario, while rotary piling would have lower emissions. As operations will not be continuous, the 1-hr average sound pressure level is used. Based on maximum combined sound pressure levels (1hr) at 10m of 73/74dB, exceedance of the relevant criteria are predicted at 6 no. sensitive receptors.

- d) A 10dB reduction can be achieved with appropriate enclosures around noisy works, in line with BS5228 and product specifications. Further measures can be used to achieved reductions of up to 30dB. There will also be a contribution from the intervening vegetation and natural terrain.
- e) The sensitivity of horses to noise is acknowledged. Daytime nuisance levels for humans are suitable for assessing the impact of noise on horses, based on previous studies of noise exposure for pedigree horses. Similarly, night-time criteria for humans are appropriate for horses, although sudden changes or impulsive events would be detrimental. The 65dB daytime contour for construction works is identified on a site plan.

Proposed piling works would be in line with standard fencing procedures for field boundaries and will only occur along the boundaries for a short period. Mitigation measures similar to those proposed for human receptors are appropriate.

A site representative will be appointed to receive and responds to any noise complaints.

10.2. Further Submissions

Following the decision that an oral hearing was not required in respect of the proposed development, the first party further information response was circulated to parties together for comment.

10.2.1. PA Submission on Further Information Response

The planning authority noted that by order of the High Court (March 2023), Gowran Grange House and Demesne has been removed from the Record of Protected Structures.

10.2.2. Third Party Submissions on Further Information Response

Submissions were received from the following third parties in response to the first party further information response. Issues raised in the submissions are summarised together below:

- Orla O'Connor
- Fergal and Ann Coultry
- Evelyn, Jennifer and Vivien Cullen
- Philip O'Reilly
- Irish Thoroughbred Breeders Association
- Friends of Swordlestown Little Stud
- Punchestown Area Community Group
- Dr. Demond Leadon and Dr. Marian Klay
- William and Susanne Quinn
- Treasa Nangle
- Annamarie Doody
- Anthony Hennessy
- Deirdre and John Brett
- Kevin and Sinead Morrissey
- Mary Flaherty
- Miriam and David Valentine
- Hugh Dillon
- Donal Knight

Noise Impacts

- The response should have been subject to independent review.

- Construction activity and associated noise will be incompatible with adjoining stud operations and would not be a temporary impact.
- Authors of the Technical Note have no equine expertise and fail to consider the environmental needs of breeding and training horses.
- The noise assessment does not quantify the frequency of events and does not deal with vibration effects on horses.
- Noise disturbance presents a health and safety risk to horses and their handler and may have financial impacts on adjoining stud farms.
- Referenced noise standards for humans are not appropriate for horses. Racecourse noise is not an appropriate baseline for such an environment.
- The development is contrary to development plan policy to protect equine uses.
- Noise sampling was not conducted in accordance with EPA guidance.
- Sensitive receptors did not include any equine receptors, only houses.
- The nature and practical application of proposed mitigation is unclear.
- The use of average noise values is not appropriate. LAmax values will be higher.
- Rotary piling will be slower and more continuous, with higher average values.
- While a site representative is to be appointed there is no indication as to what will be done in the event of noise complaints / issues arising.
- Construction traffic noise is not addressed.
- There are inconsistencies in the referenced noise emission standard and plant and machinery modelled.
- Reliance on trees and vegetation for noise mitigation will not be effective.
- Vibration impacts cannot be discounted on the basis of separation distances.
- Operational noise from inverters, close to property boundaries, is not addressed.
- Works are not comparable with agricultural activities in duration or output and disturbance effects will restrict use of part of third-party lands by horses.
- The previously circulated expert report from Prof. Bayly was not addressed.

Gowran Grange Demesne

- Such industrial use will have significant landscape and visual, environment and agricultural impacts.
- The development is contrary to development plan policies for historic demesne landscapes and gardens and the requirements of the Florence Charter.

- Funding the upkeep of Gowran Grange House does not justify such proposals.
- Failure to list the property on the NIAH does not indicate that it is not of value. The NIAH garden survey should not be disregarded.
- The entire demesne, including lands to north of Wool Pack Road, are of value and uniqueness and will be negatively impacted.
- The AHIA does not adequately assess or identify the designed landscape and there is no evidence to regard only a small part of the overall demesne as a designed landscape.
- Based on the Architectural Heritage Protection Guidelines, the entire designed 185ha parkland landscape should be protected.
- Gowran Grange House was removed from the RPS on procedural grounds only. The PA intend to include the structure in the RPS in the future.
- Outbuildings and other structures, and their setting, are also of significance.
- The continuity of field boundary layout since 1830's is significant. There is no effort to integrate trees and heritage issues, or field boundaries.
- Loss of trees will materially impact on visual amenities and landscape character and undermine the historic demesne character.
- The landscape expertise of the Architectural Heritage consultant is unclear.
- The AHIA fails to address the relationship with the protected structure and impact on its setting. It does not question the protected status of the property.
- The issue is the scale of development which is not a natural diversification of agricultural uses.
- The AHIA does not provide a policy basis to over-ride other siting considerations.
- The assessment of views from the main house and garden is inadequate. The pleasure grounds of the house have a visual relationship with the parkland.
- The independent expert report concludes that there was evidence of a designed parkland landscape from the 1870's.
- The views from Woolpack Road are of high quality.
- Works to achieve sightlines may result in the removal of perimeter walls.
- There is no assessment of the historic cottage in the western parcel.
- The proposed lay-by on the L2023 and solar panels to the north will negatively impact on the character of the entrance and demesne.
- The construction cross-over of the historic avenue is not low-key.

- Any regrading works would further erode or erase the historic landscape.
- The extent of works are not reversible.

Third parties submissions enclose a copy of *Gowran Grange demesne: historic designed landscape*, by Claire McDonald.

11.0 Assessment

Having examined the application details and all other documentation on file, including all of the submissions received in relation to the appeal and further responses, and inspected the site, and having regard to relevant local, regional and national policy and guidance, I consider that the main issues to be considered in this case can be considered under the following headings:

- Procedural Matters
- Ownership
- Land Use
- Water
- Roads and Traffic
- Biodiversity
- Cultural Heritage
- Landscape and Visual Impacts
- Glint and Glare
- Fire safety:
- Noise
- Other matters Arising

11.1. Procedural matters

With regard to public notices, I note that internal PA reports indicate that the site notices were inspected and found to be satisfactory, and the application was deemed to be valid. I consider that the notices provide sufficient information to inform a member of the public of the nature of the proposed development and to advise them of how to seek further information about the development if they were so interested.

I note third party submissions regarding the incorrect siting of notice no. 9 on Area no. 3. Having reviewed the drawings, I consider that the site notice does not accurately reflect the location of the proposed site entrance. It's location, on an existing field entrance appears to lie just outside the application site. Having regard to the number and content of site notices erected, however, I consider that the third party were sufficiently informed about the application via the public notices and that their participation in the planning application and appeal process has not been impeded. I do not consider that there is any basis for the Board to invalidate the application in this regard.

The submitted plans and drawings appear to meet the requirements of the regulations. I do not consider, given the separation between the solar array and adjoining structures, that contiguous elevation drawings are required.

The 3rd party appeal submissions were accompanied by the relevant acknowledgements of earlier submissions to the planning authority and identify a name and address for the appeal. While I note the first party submission, there is no clear evidence that the referenced appeals are invalid or based on incorrect information. Notwithstanding this conclusion, as noted by the first party, the issues raised in the referenced appeals are generally reflected in other third-party appeal submissions.

11.2. Ownership:

The issue of landownership was raised at planning application stage and again in third party appeals and observations. I note that the planning application was accompanied by two letters of consent from John de Robeck and Caroline de Robeck. A third-party appellant, Catriona de Robeck claims beneficial ownership of the lands, as spouse of John de Robeck and indicates that she did not consent to the making of the application. The submission clearly describes a beneficial interest in the property, which is understood to comprise an interest in the economic benefit of a property.

I note that neither party has submitted evidence in the way of deeds, however, supporting letters from the first party solicitors have been submitted at both application and appeal stage. It is not the role of the planning authority or An Bord Pleanála to determine ownership disputes and I am inclined to concur with the position of the

planning authority in this regard. The requirement of the act is clear. It is not the case that the applicants do not have a legal interest in the lands or that they would not be in a position to implement a grant of permission if so decided. While there may be current legal proceedings which may ultimately determine this matter, I refer to s.34(13) of the act in this regard.

Separately, Eugene and Fiona Doyle have raised an issue regarding encroachment onto their farmyard / lands adjoining the L20231 within the red line boundary. The first party dispute that third party lands are included within the application. I refer to the provisions of s.34(13) of the Act and the fact that the L20231 is a public laneway, albeit it a narrow local road. The inclusion of the disputed area does not appear to be necessary to facilitate access to Area 3 and its exclusion would not appear to materially impact on the development.

The ownership issues arising from planning authority condition no. 11 are considered under Roads and Transportation section below, however, I am of the view that the standards referenced in this condition at these locations on the L20231 are not necessary in this instance to facilitate safe construction access to the lands, having regard to the nature and limited volumes of traffic on the L20231. Furthermore adequate traffic management measures can be put in place to avoid any requirement for encroachment onto third party lands while ensuring traffic safety. This matter can be adequately addressed by condition.

11.3. Land use

I refer to the provisions of the Kildare County Development Plan 2023 – 2029, as the relevant plan at date of writing. There is support in the plan for renewable energy development, in line with national policy, while Policy EC P5 specifically promotes the development of solar energy infrastructure.

Section 7.6 sets out locational considerations for the assessment of individual planning applications. The subject lands are in agricultural (tillage and grazing) use. The development plan criteria identify a preference for the reuse of previously developed land such as brownfield land, contaminated land or industrial land and non-productive agricultural land, in preference to productive land, however, the siting of solar energy development on agricultural land is not excluded. In respect of landscape

character, solar energy development is described in the plan as being highly compatible with this transitional landscape character area.

The first party rationale for selection of this site as outlined in their appeal response is stated to include the extent of lands available in single ownership and proximity to the national grid. The applicants note that brownfield lands of the extent required or similar to the subject site are not available. With regard to the use of productive agricultural lands for solar energy development, the applicants state that there will be no material reduction in the quantum of agricultural lands, as they will continue to be available for use for grazing and the lands can return to arable use following decommissioning if appropriate. I note that the applicant's description of these lands as degraded from prior agricultural activities is not supported or evidenced, and at time of my site inspection large areas of the central parcel of lands had been recently sown.

While third parties refer to UK policy in relation to the location of such development, there is no national land use policy in Ireland which prescribes the preservation or protection of agricultural lands and to which this development would be contrary, nor is there any national guidance specifically in relation to the location of solar energy development. On the other hand, the Climate Action Plan 2023 notes the challenges facing the country to meet its climate and emissions targets and identifies such renewable energy projects as being in the overriding public interest. The plan notes that an ambitious target of up to 5 GW of solar by 2025 will require a transformation from agricultural land use to other uses such as solar PV. This would not suggest that development of the nature proposed on agricultural lands is unacceptable in principle.

I acknowledge that operational use for grazing would be low intensity relative to existing agricultural uses, however, such grazing use is commonplace and a viable use in such developments. Solar energy development involves relatively non-intrusive forms of construction and upon decommissioning, the lands could be made available again for agricultural use. Having regard to the foregoing, I do not consider that the proposed development would be unacceptable solely on grounds of the loss of productive agricultural lands.

Development Plan Policy RD 015 seeks to encourage the bloodstock industry by appropriately protecting the environment and amenity value of rural areas from encroachment by urban sprawl and incompatible development. The Development Plan

does not define what is regarded as ‘incompatible development’ however. Solar energy development is not specifically precluded in such areas and the development would not result in any loss of lands currently in use for equine activities. I consider therefore that the question of incompatibility would fall to be considered under the headings set out further below.

11.4. **Water:**

The site lies within the Liffey Catchment and is traversed by two watercourses. These watercourses are not assigned a water status by the EPA, however, they flow northwest to the Broadfield Stream which discharges into the Naas Hospital Watercourse (IE_EA_09L011300), which is noted to be of good status. The Eastern CFRAMS study¹ describes drainage in this area as follows:

The Naas stream (25 km²) is largest of the model’s catchments and emanates from the foothills of the Wicklow Mountains south of the town. The Broadfield watercourse is the main contributing sub-catchment which flows from the south through the lakes adjacent to the Ballymore Road in the south of the town before joining the Naas stream near the town centre. The Naas Stream then flows to the north past the Octagon Pond system which it feeds via a system of sluice gates and weirs before discharging to the canal (Naas Corbally Branch) to the west of Oldtown Demesne. A number of watercourses / ditches adjacent to the canal are fed from overflows which transfer flow between canal sections, bypassing the lock gates. The final section of the watercourse located between the canal and the Liffey does not seem to be fed from the canal and is thought to be a drainage link under the canal for the partly urbanised catchment to the east.

Appellants have criticised the applicant’s description of the hydrological environment, however, I do not consider that there is doubt with regard to the drainage patterns in this location. The applicant’s description of the surface water environment is based on the EPA descriptions of watercourses in the area, which is considered reasonable and

¹ Eastern CFRAM Study, HA09 Hydraulic Report – Naas Model (2016)

the description of watercourses within the site as *drains* is not considered to be a material matter.

In common with most development projects, there is a risk that works may give rise to contamination or release of silt / sediment to watercourses. In this regard, the Environmental Report identifies mitigation measures, including standard construction measures to address potential impacts on water quality. In addition, the application proposes that a 6m buffer zone / separation from drains and watercourses will be maintained during works.

Having regard to the relatively low intensity nature of construction activity, limited excavation requirements and identified construction mitigation measures, I consider the potential for impacts on water quality would satisfactorily mitigated and no significant effects are considered likely. I refer also to section 9.6 below in respect of Biodiversity for further discussion on the aquatic environment. I conclude therefore that there will be no adverse effects on water quality and no breach of obligations under the WFD.

Third party submissions have raised concerns with regard to drainage and potential flooding impacts. Some photographic evidence of ponding to the northwest and west of Watch House Cross is provided, although there is no evidence of flooding of the road network (L2023). I note that this area of the lands, adjoining the crossroads, is to be maintained free of development.

Much of the subject site is currently under tillage. The development of solar arrays does not materially alter the drainage patterns of agricultural lands in terms of runoff volumes, peak rates or time to peak rates when the ground below the panels is vegetated. The panels will be erected parallel to ground contours and the ground under and between the proposed solar panel frames is to be provided as grass / grazing. Surface water run-off will continue to infiltrate to ground, and such vegetation cover will facilitate potentially greater retention / reduced run-off than tilled ground. No significant increase in surface-water runoff is anticipated compared to greenfield rates. Notwithstanding third-party comments, such vegetation cover is a common and a viable proposal for solar energy developments. The Environmental Report proposes that the lands would be returned to pasture / grassland >12 months prior to

commencement of construction in order that the development would be undertaken on an established surface.

As a precautionary measure, however, in the event of a decision to grant permission it is recommended that a surface water drainage strategy including the use of swale features be incorporated into any development, to ensure that any runoff is intercepted and stored within the site before discharging to ground or watercourses. Such features should be designed in accordance with the CIRIA SuDS manual.

While applicants refer to potential contamination from the cleaning of panels, I note that SEAI advise that unless they are located in a particularly dirty environment, rain will generally keep PV modules in Ireland dust free. In this regard, I do not consider that significant water quality impacts from the cleaning of panels is likely.

11.5. Roads and Traffic

The site is served primarily by the R411 (Ballymore Eustace – Naas) and the L2023 (Woolpack Road). The road network is of reasonable quality and during my visit to the site and surrounding area, I observed relatively large volumes of traffic, including a notable proportion of HGV's on the regional road in particular. Notwithstanding third-party appeal submissions, the County Council Transportation Department did not regard the construction traffic volumes as excessive or beyond the capacity of the road network, subject to the haul route being agreed. I note that third party appeals were accompanied by reports relating to roads and engineering matters. It is clear that the Local Authority Transportation Department had regard to the matters raised and that subject to identified measures, including revised routing of construction traffic and installation of passing bays on the L2023, they were satisfied that the development was acceptable in principle.

The applicant's estimates of construction traffic volumes included the construction of a substation on the site, which was excluded from the application at further information stage. Construction activity is predicted to extend to approx. 45 weeks, plus a commissioning stage. HGV deliveries are predicted to peak at 4- 6 deliveries per day (8-12 movements), which is not regarded as a significant volume of HGV traffic.

Having regard to the nature of the road network serving the site, the identified measures and subject to a final Construction Traffic Management Plan being agreed, I do not consider that the third-party submissions provide a sufficient basis to disregard the conclusions of the detailed report of the Local Authority Transportation Dept. in relation to traffic movements on the surrounding road network.

Third parties have queried the predicted construction traffic volumes described in the Environmental Report. I have reviewed the applicant's estimates of construction traffic, particularly in relation to panel deliveries and the requirements for excavation and removal of materials off-site and conclude that they are not unreasonable or inconsistent with other similar development proposals elsewhere. This is particularly the case following omission of the on-site substation. Notwithstanding the final figures, I consider that the surrounding road network, particularly the haul route identified by the local authority, is adequate in terms of quality and capacity to accommodate the short-term construction traffic movements which would arise, subject to a final construction traffic management plan being agreed with the local authority.

Notwithstanding third-party submissions, there is no obligation to consult with TII in respect of this development. Operational traffic volumes will be very low / minimal and will not impact on the surrounding road network.

An existing agricultural entrance to the Central Area / Development Area 1 to the south of the L-2023 will be upgraded to provide the main construction and operational site entrance. On the opposite / northern side of the L-2023, a new entrance to the northern development area will be created for construction and maintenance purposes. Facilitating sightlines at the upgraded site entrance requires the removal of approx. 140m of trees / hedgerow to the west and 30m of trees / hedgerow to the east of the existing entrance, including three Category C trees. Creation of a new entrance to the northern parcel from the L2023 will require removal of approx. 10m of hedgerow. Three new passing bays are proposed on the L2023, between the site entrance and Watch House Cross to facilitate construction traffic. I note that the Roads Authority have expressed their satisfaction with the entrance arrangements and the design of these passing bays.

There will also be a requirement to remove c.<10m of a category B hedgerow to provide a new access to Area 3. A widened entrance in the southern corner of Area 2 will not require any substantive hedgerow removal. All of these sections of boundary

hedgerow affected by works are of lower quality and are not comparable to sections of mature trees otherwise bounding the demesne lands.

Construction and operational access to the other development areas will be provided generally from within the site, minimising construction traffic movements on the adjoining local road network. Two crossings of the L-20231 will be required, from Central Area 5 to Western Area 2, and from Area 2 to Area 3. This will necessitate construction vehicles traversing the L-20231 over approx. 115m. Construction traffic will not travel along the L20231 from the L2023, and this might be appropriately addressed as part of a construction traffic management plan, in the event of a decision to grant permission in this case. While third parties have queried consent to access the site across the L-20231, I note that this is a public road. Having regard to the existing low volumes of traffic on the L20231, the length of roadway traversed, and the duration of activity proposed, I do not consider that significant impacts on other road users are likely. While some interaction will arise, I consider that this can be successfully managed to avoid delay or obstruction of road users, and a construction traffic management plan can adequately address concerns in this regard.

Condition no. 11 requires that sightlines in line with TII guidance are provided at proposed construction access points along the L2023 and L20231. Measures to achieve sightlines on the L2023 are described above. With regard to the L20231, having regard to the existing character of the lane and current low traffic volumes and speeds, I consider that the significant interventions required to achieve these sightlines would have undue negative impacts on existing hedgerows and visual screening along the lane. Third parties have also raised issues of consent to carry out works in this regard.

The applicants have proposed that, in lieu of works to achieve compliance with this condition including boundary removal at Area 2 and 3, a banksman arrangement be utilised to manage traffic movements and address safety concerns. I regard this as a sensible and reasonable proposal, which would satisfactorily address safety concerns for the temporary construction period and concerns regarding encroachment onto third party lands. Revisions to the requirements of condition no. 11 are therefore recommended in the event of a decision to grant permission for the proposed development.

11.6. Biodiversity

The Biodiversity section of the Environmental Report states that it was informed by a number of field surveys, including:

- Habitat surveys, including amphibian and bat habitat surveys
- Badger Surveys
- Wintering bird surveys
- Tree surveys.

The report identifies mature treelines and hedgerows as the principle features / habitats of interest across the lands. The main tillage areas are described as species poor, with higher levels of diversity within field margins. Watercourses within the site are described as accommodating limited aquatic plant diversity. Two active badger setts were identified close to the site, although their locations are not identified within the document. Some temporary disturbance may arise during construction and 30m buffer zones have been defined around these setts and standard construction mitigation measures are identified. There will be no significant disturbance during the operational stage. I note also the proposals at further information stage which provide for mammal movement in the design of perimeter fencing.

Existing trees and hedgerows are noted to provide suitable roosting and foraging habitat for bats and the majority of trees and hedgerows across the site are to be retained. Similarly, I note that the vacant cottage, off the L023231 adjoining Area 2 will not be impacted by the proposed development. Works will not take place at night and during the operational phase there will be no lighting or other significant effects on bats.

The site boundaries, hedgerows and areas of scrub also provide suitable habitats for breeding birds. The Environmental Report identifies protected / notable bird species occurring within 2km of the site. Of the species recorded in the applicant's surveys, the majority occurred along the boundaries or margins of the lands, with reduced occurrence within the interior of the fields. As identified by third parties, the conservation status assigned to bird species does not appear to be up to date, with some discrepancies arising, for example Red Kite and Kestrel, which are identified as

amber rather than red status. Greenfinch, described as green status is now an amber listed species.

3rd party submissions document sightings of species of conservation concern occurring in this area, based on local observations and includes a number of species not identified in the Environmental Report. Third parties have also provided a list of breeding and wintering birds stated to occur within the 2km zone of influence of the development. Given the rural, agricultural character of the area, the presence of such species would not be unexpected or unusual. Notwithstanding inconsistencies between the reports, I do not consider that the findings of the first party assessment are undermined fundamentally.

The applicant's winter bird surveys did not identify wetland / waterbird species on the site. These findings are reflected by my own observations during a visit to the site in January 2023. Third-parties argue that the Lesser Black-backed Gull, which is a QI for Poulaphouca Reservoir SPA, is not adequately considered in the AA Screening Report. They indicate that this species is a regular user of the site and surrounding lands, and supporting photographs and video submissions are provided in this regard. I conclude that while not recorded in the first party surveys, the use of the subject lands by this species cannot be excluded. The absence of such species from the wintering bird surveys would suggest, however, that any such use of the subject lands is not frequent or significant in nature. The third-party submissions would appear to confirm that such use would be part of a pattern of use of lands in the wider area rather than a reliance on the subject lands. The nature of the wider geographic area is such that there is a large alternative territory available in the event of birds being displaced from the site with no significant impact on the range, distribution or population of qualifying interests of European Sites likely. I refer to Section 11.0 of this report below, Appropriate Assessment, in relation to the presence of Lesser Black-backed Gulls in the vicinity of the site.

Existing hedgerow and treelines are generally being retained, with supplementary planting also proposed around the site. There is some evidence from studies in the UK in particular, that solar farms can increase the diversity of plant species growing at a site, relative to arable lands or pasture, and so encourage pollinating insects. In this regard, implementation of the applicant's Biodiversity Management Plan could make a positive contribution for breeding and wintering birds.

There is no strong basis or authoritative evidence to conclude that the proposed solar farm development would have significant negative effects on wildlife or breeding and farmland birds occurring in the area, either direct or indirect impacts such as displacement, particularly where the lands are actively farmed. There have been positive examples of such development having beneficial effects in terms of breeding birds. I accept that some disturbance is likely to arise during construction, however, the period of construction activity is relatively limited and will move relatively quickly between areas on the site and there will remain extensive alternative habitats available in the immediate vicinity. In this regard I also note proposed mitigation measures limiting vegetation clearance during the breeding season.

Cutting back / removal of hedgerow and a limited number of trees will be required at the new and upgraded entrance from the L-2023 to provide adequate sightlines. Hedgerow removal affects c.140m to the west and 30m opposite the main site entrance. Affected hedgerow / roadside boundaries are of varying, and mainly lower, quality and maturity and do not comprise part of the main mature woodland area surrounding and contributing to the setting of Gowran Grange House. The application includes proposals for replacement planting and reinforcement of existing retained hedgerows around the site. I do not consider that the impacts of the development would be unacceptable in this regard.

A number of third parties refer to a report titled *Review of Biodiversity Aspects of the planning application and associated objections for a Solar Array at Swordlestown North and South Co. Kildare* (Dr. Mary O'Connor). This report identifies a range of habitats which have not been assessed as part of the application documentation, although it does not provide any commentary on the relative value of such habitats or the likelihood of any significant change. It is the case that a number of habitat types will be directly impacted by the proposed development works. The sensitivity or value of these habitats, such as improved agricultural grassland, is not high however. Similarly, the extent and significance of impacts to higher value habitats such as hedgerows and treelines is not high. I am of the view that having regard to the identified construction management and mitigation measures and the pathways for potential effects on habitats occurring outside the site, that significant effects on the environment are not likely.

In respect of the designation of Gowran Grange in the Development Plan as an ecological stepping stone, I note the existing use of the site for extensive grazing or tillage uses, with limited internal hedgerows. The extent of excavation works required as part of the development is limited. Existing hedgerow and field boundaries are to be retained, with only limited areas of removal, while additional planting is proposed around the site. Similarly, existing watercourses will be maintained and a suitable buffer zone between development and their banks will be provided. In this regard, it is considered that the primary features and pathways through the site contributing to its role as a stepping stone site will be maintained. This is in accordance with development plan objective BI 022.

The 3rd party review argues that the ecological assessment does not consider all conservation sites (pNHA's or wetland sites) within 5km of the site and that the defined zone of influence is inadequate. I refer to section 11.0 of this report below, *Appropriate Assessment Screening*, in respect of European Sites. The closest pNHA's to the application site are the Grand Canal pNHA and the Liffey Valley Meander Belt pNHA's, to which there is no direct connection or pathway from the subject site. Harristown pNHA is referenced in third party submissions, however, I note that the Development Plan identifies this as a candidate NHA rather than a proposed NHA and it is not identified by NPWS as a proposed NHA at this time. Notwithstanding this distinction, I note that there is no hydrological connection or other pathway between the development site and this wetland habitat, located approx. 2.4km to the west.

Third parties argue that the assessment of wetland and waterway habitats, and dependent species, is deficient. The presence of white-clawed crawfish within streams is cited and although the precise locations of recorded sightings are not clear. While it is argued that no detailed assessment for amphibians or their habitats was carried out, the Environmental Report describes the watercourses within the site and acknowledges that some slower moving drainage ditches are suitable habitats for native amphibians, including frog, and that grassland habitats are similarly suitable. Notwithstanding the variance between the parties in this regard, I refer to the commentary above in respect of water quality and conclude, having regard to the limited extent of excavation required and subject to the identified measures to protect water quality during construction, that adverse impacts on aquatic habitats and fauna would be avoided.

Similarly, having regard to the separation distance arising, including the indirect nature of the connection as described in CFRAMS set out above and likely dilution of any effects arising during construction, significant impacts on the Grand Canal or River Liffey are not considered likely. There will be no obstacles to the movement of otter along watercourses as part of the development and I note that proposed fencing incorporates provision for mammal movement.

Identified mitigation measures include the following:

- Adherence to a CEMP, supervised by an ECoW.
- Implementation of the measures set out in the Arboricultural Impact Assessment and method Statement, including the erection of protection fencing.
- Replacement and reinforcement planting along boundaries.
- The layout of development providing for the following:
 - 6m set-back between all development works and hedgerows, trees, and woodland, and drainage ditches. No infrastructure within root protection areas.
 - 5m set-back from boundary fencing.
 - 30m buffer around badger setts and 50m exclusion for works during breeding season. Adherence to NRA Guidance.
 - Provision for mammal movement through perimeter fences.
- Pre-construction surveys for terrestrial mammals within or close to works areas.
- Vegetation clearance to take place outside the nesting season. Any works within season shall be subject to pre-development survey and exclusion in the event of nesting activity being identified.
- Biosecurity measures to avoid the spread of invasive species.
- Implement a Biodiversity Management Plan to conserve and enhance habitats.

Subject to such measures it is considered that significant negative effects on biodiversity will be avoided by the proposed development.

11.7. Cultural Heritage

The Environmental Report notes the presence of a number of monuments within or adjoining the application site:

- Ring Barrow KD024-006, located to the NE of the site on the R411.

- Ring Barrow KD024-008, located to the east of the site, on the R411 boundary and south of Watchhouse Cross.
- Designed Landscape Feature KD024-040, located within the grounds of Gowran Grange House. This is described as a late-19th C / early-20th C landscape features.

There are also other features in the surrounding area. The development is stated to avoid all known monuments, and a 60m separation is provided from the outer visible surface feature of barrow monuments. Monitoring of ground disturbance and soil removal will mitigate potential impacts on previously unknown features. I note the submission of the Development Applications Unit in this regard.

Gowran Grange House was constructed between 1857 and 1872 in the Tudor revival style, while a pre-existing farmhouse and yard were incorporated into the later extensive farm complex. Third party submissions on the historical significance of the house include and a written opinion by Dr. Andrew Tierney (TCD). The demesne is identified on the NIAH Garden Survey, although this was not referenced in the original Environmental Report. Gowran Grange House and Demesne was added to the list of Proposed Protected Structures as part of the review of the County Development Plan in September 2022, during the course of this planning appeal. Following subsequent legal proceedings, however, it was removed from this list. The provisions of s.57(10)(a) do not therefore apply in this case.

The existing landholding will be retained in single ownership and will not be broken up to facilitate the development. Notwithstanding its spatial extent, the development works themselves are relatively non-intrusive and are generally reversible, such that the lands could be returned to agricultural use. There will be no impacts on historic walls bounding the demesne.

The precise definition of the demesne lands has been the subject of discussion in first and third party submissions, with reference being made to historic mapping of the area. Based on such historic mapping and the retention of the lands within the same ownership, it would appear that the northern development area did comprise part of the original demesne, although that area does not include mature trees or features which are evident to the south of the L2023. This road provides clear separation between these northern agricultural lands and lands surrounding the house. The

conclusions of the third-party report (Claire McDonald) confirm that the northern parcel was not part of the designed landscape. Similarly, the western development area does not have a close relationship with the central area or Gowran Grange House and is different in character.

I note the first party report by Rob Goodbody in response to a request for further information from the Board following inclusion of the House as a Proposed Protected Structure, titled "*Gowran Grange House, its historic demesne including all historic buildings, structures and decorative features.*" This examines the historic development of the house and associated lands and makes the distinction between "demesne lands" and "designed landscapes", such as these lands closely bounding Gowran Grange House itself. Such approach would be consistent with the approach set out in the Architectural Heritage Protection Guidelines for Planning Authorities. I note also development plan policies referring to designed landscapes.

There has been relatively little change in the field layout since the 1830's and I regard the conclusion of the applicant's report that the designed landscape is concentrated around the main house and farmyard as reasonable. This would also be generally consistent with the conclusions of the third-party report (Claire McDonald). The development will introduce a new use onto the lands but there will be no direct impact on the house or modification to the layout of the lands, where existing trees and hedgerows are generally to be retained.

The key impacts arising from the development therefore are, in my view, the impact on views and connections between the house and the surrounding lands. In terms of views from the house and its surrounds, the existing mature trees and landscaping provide an effective visual screen to the west and north of the house. The main house is oriented to face south and the formal lawns to the south of the house are generally bounded by mature trees. There are views through the tree belt from the house to lands to the south, which will include views to the proposed solar panels. It is proposed that existing recent and proposed supplementary planting will screen such views, however, their effectiveness in screening views to and from the house is not clear. I consider that there is potential to negatively impact on the setting of the house and on view to and from the house. In this regard I consider that the omission of a section of the proposed solar array within the corridor of visibility to the south of the house, east of the gravel ridge, would satisfactorily address the impacts of the

development on the setting of the house. The Board may wish to consider a condition in this regard in the event of a decision to grant permission. Having walked the grounds I do not consider that significant impacts on walkways or on the pleasure grounds associated with the house would arise.

The historic entrance avenue serving the house runs north-south from the L2023, close to Watch House Cross. This is a tree lined route but with open views to the west. Access to Area 4 traverses the entrance avenue, however this comprises an existing agricultural route and no significant impacts from such access arrangements are anticipated. Given the existing mature trees along the route, no significant negative effects from development in area 4 are anticipated. Development in area 5 will be separated from the avenue by intervening fields, and I do not consider that there would be significant effects on the visual amenity or character of the entrance drive or of the house arising.

Having regard to the foregoing, and subject to the proposed planting and to the protection of the visibility corridor from the main house, significant effects on cultural heritage are not considered likely. The proposed development would therefore be considered acceptable in this regard.

11.8. **Landscape and Visual Impacts:**

The potential effects of the development on the landscape and visual amenities of the area have been raised in many of the third-party submissions. This matter is related to the discussion regarding the demesne landscape of Gowran Grange above. I therefore consider the wider visual and landscape effects here. Similarly, glint and glare effects are dealt with separately.

The County Development Plan identifies this landscape area as the Eastern Transition Character area, of medium sensitivity, with capacity to accommodate a range of uses without significant adverse effects on the appearance or character of the landscape. Solar energy development is identified as being generally of high compatibility with this landscape character area. In principle therefore, the development is acceptable under the development plan landscape policy subject to local sensitivities.

The development site is extensive, comprising c.112ha, varying in character and use. The subdivision of the development lands into a number of separate parcels reduces the apparent scale of development, such that the overall development would not be viewed from any one location in its entirety. Within views from more elevated lands to the southeast, Punchestown Racecourse complex is and will continue to be the most prominent feature in the landscape. Views toward the site from elevated ground at Mullaghcash to the west, are limited by vegetation and the break-up of the lands. While there will be some change to such views I do not consider that there will be significant negative effects on the landscape or visual amenities of the area.

Scenic routes identified in the development plan (including no.'s 13, 27 & 29) are generally at a remove of 4.5 – 6km from the site. Given the level of separation and expansive nature of such views, it is not considered that the development would form a prominent feature in the landscape or that there would be any significant negative effects from the development.

The development will generally retain existing features, including hedgerows and mature treeline features, which will contribute to screening the development and would accord with development plan policy LR 04. There will be no impacts on existing stone walls or boundary structures of the original demesne. The siting of much of the development and the existing mature boundaries and treelines are such that the development will not generally be readily visible from the R441. The application indicates that approx. 10km of additional hedge / treeline planting and supplementary planting will be provided to provide visual screening, while hedgerow loss along the L-2023 will be replaced with new woodland mix planting.

The northern parcel of lands comprises a number of large fields under tillage separated by mature hedgerow / boundaries. The development is set-back from the crossroads / L2023 with planting proposals on the site boundaries. The sloping nature of the lands provides some exposure to the south and will be more prominent in local views in the vicinity of Watch House Cross. Such localised impacts arising are limited, however, and not considered to have significant negative effects on the amenity of the area. The R441 runs parallel to the eastern site boundary. There will be views across the northern development area from houses to the northeast on the R441 toward the back of the proposed solar arrays, however, the development will not block longer

views from these houses due to the fall in levels across the lands. Significant negative effects on the amenities of the area are not therefore considered likely.

The central parcel of lands surrounds Gowran Grange house and farmyard, and associated dwellings and structures. Having regard to the nature of mature roadside boundaries, there are limited views into these lands from the surrounding road network. The principle view available is south across the lands from the existing agricultural entrance from the L2023. This is an attractive view across undulating farmland, with mature trees in the foreground and background providing interest, however, such view is limited and briefly experienced and I do not regard the effects of the development as unacceptable in this regard.

The most significant effect is the loss of approx. 170m of roadside boundary along the L2023. Such existing boundary vegetation is not of high quality, however, and subject to the proposed reinstatement planting it is considered that the short to medium-term effects of the development would be acceptable.

The western development area differs in character, being generally level and under grazing. There are limited views to this parcel from the wider area and road frontage is limited to the local road L20231. There will be views to Area 2 from adjoining dwellings along this road, however, the array is set back from houses at the western end of the L20231 with intervening planting, such that any effects arising are not regarded as significant. Views south to Area 3 will generally be limited by roadside vegetation.

I note third party submissions with regard to the timeframe for proposed screen planting to mature and become effective. I consider that the establishment of such planting in advance of works on the site, the inclusion of semi-mature specimens at specific locations, including northwest of Watch House Cross, and the on-going management and maintenance of such planting will contribute to ensuring that local visual effects are limited and short-term in nature. I note that while not all of the existing mature woodland and trees which effectively screen large parts of the site from the surrounding area are not within the application boundary, these lands remain in the same single ownership.

I note the submission of a Landscape and Visual Impact Review, prepared by CSR, for third parties. This report presents a critique of the applicant's LVIA, including the level of detail described, the assessment of effect on Gowran Grange Demesne and

residential properties, and the photomontage imagery presented. The report presents a different professional opinion on the impacts of the development. I have had regard to both of these submissions in considering the landscape and visual impacts of the development and in reaching my own conclusions on the development set out above.

With respect to tourism in the area, I would comment that visitors attending the adjacent racecourse are likely to be focused on that venue and the associated racing activity. Visibility of the development from the overflow car parking areas on the northern end of the racecourse lands does not, in my view, constitute a significant landscape impact and I do not consider that changes to peripheral views from that venue would alter or significantly detract from the experience of attendees. While the landscape is otherwise attractive, I do not consider that the limited landscape and visual effects of the development would undermine the tourism or visitor experience in this area. Significant effects on the operation of The Elms Gourmet Pantry & Interiors, northwest of Watchhouse Cross, are not anticipated given the relative separation and orientation of the premises from the site and the intervening roadside boundary.

The proposed development will result in a change to the character of the area however, I do not regard the effects of such change as significant negative or consider that it would be unacceptable in principle at this location. While it is an attractive, mature rural landscape, this area is not designated as a scenic landscape in the County Development Plan or for tourism related development. This is a transitional landscape wherein the plan identifies solar energy development as a compatible use, and this change must be seen in the context of the energy and climate issues facing the country.

11.9. **Glint and Glare**

The term glint and glare refers to the differing reflective effects of either specular or diffuse reflection from solar panels. Glint from specular reflection results in a flash of light, while the diffuse reflection is referred to as Glare. Glint effects from solar panels can only occur if a receptor is directly in view of the reflected light and such effects will be blocked by intervening structures or vegetation. Glare is significantly less intense in comparison to glint and can be described as a continuous source of bright light,

relative to diffused light. Glare is not a direct reflection of the sun, but a reflection of the bright sky around the sun.

Solar panels are designed to absorb as much light as possible, to increase efficiency and minimise reflected light. They are thus less reflective than standard glass, and similar but lower than water and other structures such as shed roofs, agricultural plastic ground covering and wet roads. Notwithstanding these characteristics, there still remains a potential for glint and glare effects on visual amenity and road users.

The applicant's assessment considers potential effects on residential occupiers and road users within 1km of the site, as impacts reduce with distance, and for aviation activities in the wider area. In the absence of any guidelines for assessment, the application provides an indicative table to describe magnitude of effects, stated to be based on a conservative assumption about weather conditions, sunshine and intensity, i.e. that the sun is always shining at full intensity. It notes that cloud cover will result in a significant reduction in predicted results. The orientation and angle of panels will be such that impacts cannot arise to the north of the panels. Houses and roads to the west can only be impacted by morning reflectance, while those to the east can only be affected by evening reflectance. It is stated that an initial analysis resulted in some revisions to the design of development to address potential glint and glare impacts.

Proposed mitigation includes the retention of existing trees, hedgerows and proposed planting. Existing hedgerows are to be allowed to grow-out prior to commencement of development. While proposed planting is becoming established, it is proposed to erect agricultural wind-stop netting along a section of the R411.

The initial assessment of impacts on 60 no. dwellings within the defined study area identified houses where Very Low to Low magnitude impacts will be experienced after existing and proposed screening is implemented. (Figure 10-11 and 10-12 of the Environmental Report.) Where impacts of <5 minutes /day or 60 minutes / year are predicted, this is described as equating to no impact. Following the omission of the gliding club lands at further information stage, a revised assessment was undertaken, which predicts low – very low effects at 3 no. properties following the application of mitigation screening, as follows:

Receptor	Effect
H07B	For 6 minutes over 3 days a year (2 min / day) between 6.30am and 8am at upper floors only.
H35b	For a maximum of 12 minutes / day over 63 days a year (334 minutes / year), between 7am and 8.30am at upper floors only. The average duration of effect is 5 minutes.
H55	For a maximum of 8 minutes / day over 68 days a year (270 minutes / year) between 6.30am and 8am. The average duration of effect is 3.97 minutes.

Having regard to the results of the assessment it is concluded that significant nuisance impacts on nearby dwellings are not likely to arise.

In terms of impacts on adjoining transport receptors / road network, the assessment considers the L2023, R411 and local road to the south / southeast of the airfield (L6049). Taking account of existing screening, the original assessment (including the airfield lands) concluded that glint and glare impacts were possible at 9 no. receptor points, after existing screening is taken into account, but that such effects would be limited in duration and extent. Proposed screen planting and intermediate windstop netting in the vicinity of Watch House Crossroads, will remove potential effects along the L2023 and on the R441. On the basis of the analysis, the application concludes that the development is not likely to result in hazardous conditions for road users. I note the reports of the local authority Transportation Department, and consider that the recommended condition requiring post-construction surveys to confirm the findings of the assessment undertaken, would be a reasonable approach.

I note third party appellant and observers' comments with regard to potential glint and glare impacts. I consider however, that a reasonable assessment of the likely effects of the proposed development has been undertaken, which takes due account of the topography of the lands. The external consultant's report and commentary on the assessment is also noted, however, this does not provide a contrary technical assessment or conclusion sufficient to significantly undermine the conclusions of the first party reports.

With regard to impacts on equine receptors, I note that no evidence of significant effects on bloodstock of glint or glare has been provided beyond statements to this effect. I note also that the first party assessment generally indicates that there would

be limited visibility / potential for effects on adjoining lands in equine uses and, in this regard, I do not consider that this would constitute a ground for refusal or for material alteration to the development.

A review of potential impacts on the operation of Gowran Grange Airfield was undertaken (Charlotte Peacock Associates Ltd., March 2022). While there is an absence of national guidance in this regard, the assessment refers to US Federal Aviation Authority guidance (*Technical Guidance for Evaluating Selected Solar Technologies on Airports*. Washington, D.C.: Federal Aviation Administration, November 2010). This guidance notes that “*Today’s panels reflect as little as 2% of the incoming sunlight depending on the angle of the sun and assuming use of anti-reflective coatings.*”

The report assessed take-off and landing approach at the airfield against whether any glint may be experienced and the timings thereof and concludes that the development is not predicted to cause a hazard to safety at the airfield. Notwithstanding third-party submissions, there is no evidence or analysis presented to contradict the findings of the applicant’s Glint and Glare Assessment and its findings with regard to effects on aircraft using the airfield.

Third parties also argue that the development will result in the loss of a potential emergency landing site for aircraft using the Gliding Club airfield. In this regard, I note that the site is outside the Take-Off and Approach Safety Zones for the airfield that there are no restrictions on land uses adjoining such sites. The IAA has not raised any objection to the development on such grounds. I note that the commercial use of drones is subject to separate regulatory regime. I conclude therefore that there is no objection to the proposed development on the basis of aviation safety.

11.10. **Noise**

The subject lands are currently in agricultural use, mainly tillage, while the surrounding area comprises a mixture of pasture / equestrian uses and tillage, dispersed dwellinghouses and the adjoining airfield. The adjoining road network is relatively busy, while Punchestown Racecourse attracts large crowds during race meets. The impact of construction and operational noise on adjoining residential and equine receptors has been raised in third party submissions.

The application was accompanied by an assessment of noise impacts prepared by a qualified consultant, which included the results of baseline noise monitoring undertaken in October 2021. 19 no. noise sensitive receptors / locations were identified, comprising dwellings around the site, varying between 15m and 660m from the site boundary, and six ambient noise monitoring locations were established. The baseline monitoring results identify the key acoustic features of the area as traffic noise, aircraft and agricultural activity. While third parties refer to a failure to conduct baseline monitoring in line with EPA guidelines, I note that the methodology is stated to be that of ISO 1996-2:2017.

While monitoring indicates that the area generally experiences relatively low levels of ambient noise, the area was not determined to meet the EPA criteria for designation as a “Quiet Area”, for the purposes of noise impact assessment. It is noted that agricultural activity on these and adjoining lands will occasionally introduce higher levels of noise to adjoining lands and receptors.

Operational Noise

Solar farms do not generate significant noise emissions during operation, with the primary source of noise identified as the power hubs (inverters & transformers). As power generation reduces between dusk and dawn, night-time noise emissions will reduce accordingly during this period. I note that powerhubs are located within and around the development, generally more than 20m from the site boundaries, with the closest being c.15m from the boundary in the northwestern corner of the site. Greater separation from sensitive receptors is achieved, however. The applicant’s Environmental Report indicates that the indicative sound power at Power hubs (inverter and transformers) would be 69dB(A) reducing to 38dB(A) at 10m. Modelling indicates that operational noise from power hubs at the closest NSL’s will be 22dB LAeqT, or lower, while cumulative on-site noise emissions, including the substation, were originally modelled in the Environmental Report as 28db LAeqT, at the nearest noise sensitive locations. It is stated that the cited sound levels will form part of the equipment tendering process, in order to ensure that the modelled values are achieved.

The increase in cumulative noise over background noise levels are identified in table 8.15 and 8.16 of the Environmental Report, with a maximum increase of 3dB identified

at night-time for two receptors to the northeast of the site. All NSL's will remain below the relevant daytime and night-time reference values, however. These modelled results ignore the lower noise emissions arising due to the reduced operational output at night and include the substation which was omitted at further information stage, and can thus be regarded as conservative.

Based on the modelled emissions, significant operational noise effects on sensitive receptors are not considered likely. I consider that in the event of a decision to grant permission, operational monitoring to confirm the results of the modelling undertaken would be appropriate. While third parties have referred to aeolian noise from solar farms, I note that there is no documented evidence of such emissions or effects thereof.

Third parties refer to inconsistencies between the reported sound power level for the power hubs in this application and those quoted in other planning applications for similar equipment. I note that a potential 10dB difference would arise in this regard (38 – 48dB(A)). Having regard to the separation of power hubs from adjoining residential properties, I am satisfied that even allowing for such higher operational noise emissions, levels would not be sufficient to negatively impact on the amenities of the surrounding area, and would not exceed night-time values in particular. Operational noise monitoring referenced above would address concerns in this regard, however.

Construction stage:

Concerns are also expressed in respect of noise impacts during construction. Construction is by its nature a temporary activity. While a duration of c.12 months is described in this case, works would progress around the site such that impacts in any one area will be of shorter duration. Peak construction noise is predicted to occur in weeks 1-35 approximately.

Based on the baseline monitoring results, identified residential NSR's (dwellings) are described as Category A in accordance with BS5228, where the following noise limit value of would apply.

Period	Threshold value (L_{Aeq})
Night-time (2300 – 0700)	45 dB
Evening and weekends	55 dB
Daytime (0700-1900 weekdays & 0700-1300 Saturday)	65 dB

The original Environmental Report predicted combined emissions from construction activities of up to 81 LAeqT dB, at 10m. The first party further information response to the Board confirmed that this was based on the use of hydraulic piling for boundary fencing and rotary / auger piling for solar arrays.

The FI response provides further detail of potential construction noise emissions. While predicted noise levels at identified NSR's were calculated using distance to the site boundary fence, the distance to solar frame works will be greater. Based on separation from the site boundary, table 5-1 of the FI response identifies 8 no. NSR's (exc. No. 5 due to the omission of the glider club lands) which would exceed the ABC daytime threshold value of 65dB as set out in BS5228, with noise levels of 66 – 77dB predicted, without mitigation. This is reflective of boundary fencing works.

As construction noise emissions will not be continuous due to the time required to move between piling locations, the use of 1hr average sound pressure levels is proposed (table 5-2). Based on these average hourly noise levels, 6 no. NSR's would exceed the daytime reference values. Proposed mitigation primarily comprises the use of acoustic barriers to provide a reduction of 10dB at receptors to achieve compliance with BS5228 criteria.

Based on the worst-case predicted noise values set out in Table 8-10 of the Environmental Report (Table 1-1 of the further information response) and allowing for separation from works areas, a number of receptors could experience temporary construction noise levels in excess of the threshold values identified in BS5228. I note, however that the duration of effect would be much shorter than a standard construction project and that subject to the application of proposed mitigation measures, including the use of acoustic barriers, significant adverse effects during construction are not anticipated. The mitigation measures / use of acoustic barriers proposed by the applicants would not be required across the entire site given increasing separation from receptors, and notwithstanding third-party comments, there is no indication that their application would unduly delay the overall construction process. While third parties refer to vibration effects from piling activity, having regard to the use of rotary piling for solar arrays and the limited duration of fencing piling activity, significant effects in this regard are not considered likely.

Impact on adjoining equine uses

The application concludes that the daytime operational nuisance limit for humans, identified as LAeqT 55dB, is suitable for assessing the impact of noise on horses. I note, however that the predicted operational emissions would be significantly lower than this limit. Similarly, night-time impacts on equine receptors are predicted to be negligible having regard to the characteristics of night-time emissions from the proposed development. Having regard to the nature of the proposed development and predicted negligible increase over baseline levels, I consider that there is no likelihood of significant operational noise effects on equine receptors.

No specific assessment of construction noise impacts on horses on adjoining lands has been undertaken. The noise modelling undertaken was based on static receptors / dwellings, while BS5228 states that the ABC methodology is to be applied to residential receptors only. Based on the applicant's modelling for the closest identified NSR's (dwellings), however, noise levels in the adjoining equestrian lands during construction activity would also likely exceed those referenced criteria values. The first party argue that the day-time limit values for humans remain appropriate for horses. (65dB).

There is no specific guidance or published noise criteria available in respect of such equine activities and I note that neither first nor third parties have identified relevant alternative criteria values. The first party assessment acknowledges the sensitivity of horses to noise and refers to the levels of exposure of pedigree horses during major race events described in a 2008 study (Huybregts 2008). It argues that based on these values, "the typical noise exposure for pedigree horses is similar to that of humans within an urban environment, which is typically higher than the LAEQ 1hr 65dB criteria limit for construction works".

I note the veterinary qualifications of a number of the third parties and their arguments that major race events are not an appropriate baseline for comparison with stud farm operations. No alternative standards or acceptable noise levels are identified against which to assess construction effects, however.

In this regard, while construction activity will result in the introduction of new activities and noise in this area, I note the temporary and relatively short duration of such activity, and its movement across the site such that effects in any one area will be

short-lived. In this regard I note that for example, assuming predicted worst-case continuous noise emissions of 81dB during construction at 10m and allowing for noise attenuation / enclosures providing a 10dB reduction in levels, based on the inverse square law, levels of 65dB would be achieved at 20m from the source, while 55dB would be achieved at 63m from the source. Use of the average hourly values would further reduce these distances. Some habituation to repeated noise events is likely to be achieved, where such events are not associated with adverse effects. In this regard it may be considered appropriate to phase construction such that works commence at a remove from surrounding properties and progress across the site toward site boundaries to facilitate such effect.

Third parties indicate that existing agricultural activities are undertaken in consultation with adjoining stud owners to allow short-term measures to be undertaken to avoid impacts on horses. I consider that a noise management plan to include consultation with adjoining landowners during construction could be similarly implemented in this case, particularly having regard to the limited duration of construction activities.

I conclude therefore, having regard to the limited duration of activities on the lands and subject to the measures identified in the planning application and further responses to the Board, that the development would not be likely to result in undue impacts on surrounding uses in the area.

11.11. **Fire safety:**

Third parties have raised concerns regarding fire safety, particularly the requirement for internal access roads to facilitate emergency vehicle access, and refer to reports from the local authority Chief Fire Officer (CFO) in this regard. I note that compliance with fire safety regulations is a separate parallel regulatory requirement. While the initial Kildare County Council CFO report raised issues in relation to the proposed development, it is the case that following the receipt of further information the report of the Fire Officer dated 15/06/2022 stated that there was no objection to the development, subject to the requirements of the Building Control Act. I note that there appears to have been an administrative error on the part of the planning authority in circulating the original Fire Officer report dated 22/03/2022 with the decision to grant permission, which may have caused some confusion in this regard.

There is no current guidance on the design and layout of solar energy arrays nationally. With regard to the requirement for internal access roads, I note that the UK, *BRE Planning Guidance For The Development Of Large Scale Ground Mounted Solar PV Systems*, indicates the following:

11 g) Access Tracks, Solar panel facilities which are developed on agricultural land should:

- aim to minimise disturbance to the agricultural land;*
- be temporary, capable of removal and ‘reversible’; and*
- minimise their landscape/visual impact and their impact on the rural scene.*

The installation and use of access tracks should therefore be kept to an absolute minimum. One track linking the inverters may be necessary as a minimum to enable exchange of inverters and replacement of heavy machinery. Agricultural vehicles, including tractors, quad bikes and 4WD, should be capable of servicing the facilities on a daily basis without the need to construct access tracks through the site.

The proposed development is aligned with such guidance and the Environmental Report notes that during the operational stage, temporary surfaces may be used for construction or maintenance works.

I note the provisions of the Development Management Guidelines for Planning Authorities (2007) in relation to the management of fire risk in the development management process (chapter 7). As stated in the Guidelines, the factors appropriate for consideration are the location of the development in relation to industrial or other hazards, access for fire services and water supplies for potential firefighting.

The applicants argue that while fire is an unlikely scenario, there are numerous access points from the surrounding public roads. I note that the development is divided into a number of separate parcels with access from public roads at a number of points which, in the event of fire, may be used for firefighting access. There are public mains water supplies available along the adjoining road networks, which already serve existing adjoining development, including housing along the L20231. The applicants indicate that the risk of grass fire would be addressed in the landscaping design and management proposals and that inverters are adequately separated from field boundaries and hedgerows.

I note the technical report accompanying third party submissions (Phoenix STS Ltd.). This report provides a critique of the applicants documentation (9th June 2022), however, it does not establish specific fire risk issues in respect of the proposed development. I note also that separate regulations apply in respect of health, safety and welfare at work and all operational activities in this regard.

Having regard to the foregoing, and in the absence of any guidance or documented level of risk, I conclude that the development would not endanger public safety or the surrounding environment and that this would not constitute a reasonable basis for refusal.

11.12. Other Matters Arising

11.12.1. Recycling:

I note overall national policy in support of the expansion of solar energy generation. The application indicates that the development will have an operational life of 35-years and was accompanied by a high-level decommissioning plan. Kildare County Council have imposed a bond condition to secure satisfactory reinstatement of the site, in an amount to be agreed. Obligations under waste licensing and waste regulations fall under separate regulatory processes and the approach of the planning authority is regarded as reasonable in this case.

11.12.2. Public Health

Solar panels are effectively inert plant and there is no clear evidence to support claims that health and safety impacts would arise from a development of the nature proposed. All electrical and electronic devices create electromagnetic fields (EMF) around them when used and also emit electromagnetic radiation (EMR). It is the level and type of EMR that is important. EMR from solar panels and solar inverters is non-ionizing and is well within guideline limits, and there are no evident risks to public health. As part of the expansion of renewable capacity, such development has the potential to reduce reliance on fossil fuels for power generation, with associated benefits in terms of emissions to air. Similarly, I note that no evidence is available the health effects of silica from damaged panels. I consider the development to be acceptable in this respect.

I note submissions which raise concerns regarding the origin of panels and human right issues arising during manufacture, however, I regard these as being outside the remit of this report.

11.12.3. Property devaluation

Submissions have raised concerns with regard to devaluation of adjoining properties due to proximity to the proposed development. Any such impacts arising would be related to other effects in respect of visual amenity, noise etc. These matters are considered separately above which is the appropriate mechanism to assess such effects.

11.12.4. Duration of Permission

The application has sought a 10-year life of permission. Such duration would be consistent with previous decisions of the Board in respect of such infrastructure developments and is considered reasonable having regard to the scale of development and requirements in respect of grid connection.

12.0 Screening

12.1. EIA Screening

Solar energy development is not listed as a class of development for the purposes of EIA under Part 2 of Schedule 5, within the Planning and Development Regulations, 2001 (as amended). In this regard, a requirement for preliminary examination or EIA would not arise.

Third-parties argue that the full project including grid connection may warrant EIA and that the splitting of the project into two parts avoids the need for EIA. The proposed solar energy development will require a connection to the national grid. While this appeal relates to a decision under S.34 of the Act, an application for such grid connection would fall under the Strategic Infrastructure provisions of the act requiring a separate application under S.182. Such underground grid connection would not constitute a class of development under Schedule 5 and would not require preliminary examination or EIA.

Appellants also argue that a requirement for EIA may arise, under Part 2 of Schedule 5 Class 10: Infrastructure projects (dd) “*all private roads which would exceed 2000 metres in length*”. I note that the proposed development does not include such private roads and therefore does not fall under Class 10. A requirement for fire access roads has been considered above, however, notwithstanding any such requirement I note that the Board has previously determined that such access tracks in respect of solar developments do not fall to be considered under Class 10 (*ABP-301028-18, ABP-302681-18, PL17.248146*).

Appellants also make the case that the proposed development comprises rural restructuring of farmland requiring screening under the Environmental Impact Assessment (*Agriculture*) Regulations, 2011, by the Department of Agriculture, Food and the Marine. In this regard I note the more recent amending regulation S.I. 383 of 2023 Planning and Development (Amendment) (No. 2) Regulations 2023, which amends Class 1 of Part 2 of Schedule 5, by inserting the following:

(a) Projects for the restructuring of rural land holdings, undertaken as part of a wider proposed development, and not as an agricultural activity that must comply with the European Communities (Environmental Impact Assessment)(Agriculture) Regulations 2011, where the length of field boundary to be removed is above 4 kilometres, or where re-contouring is above 5 hectares, or where the area of lands to be restructured by removal of field boundaries is above 50 hectares.

I note that these thresholds reflect those set out in Schedule 1, Part B of the 2011 EIA (*Agriculture*) Regulations. Furthermore, Part A of Schedule 1 of the 2011 regulations sets out the following thresholds for screening for EIA:

Restructuring of rural land holdings	Screening Required
Length of field boundary to be removed	Above 500m
Re-contouring (within farm-holding)	Above 2 hectares
Area of lands to be restructured by removal of field boundaries	Above 5 hectares

These screening thresholds may be a useful guide in considering the reinserted Class 1(a) above. The Environmental Impact Assessment (Agriculture) Regulations Guide for Farmers describes restructuring of rural land holdings as involving changing the layout of the farm. I note that the 2023 amending regulations do not identify solar development as a class of development to be subject to EIA / EIA Screening.

Circular EUIPR 01/2023 notes that it is the elements of field boundary removal or re-contouring of a field which amount to restructuring of a rural land holding which would need to be screened for EIA. The proposed development involves the removal of a limited extent of hedgerow, primarily along the L2023, comprising less than 200m. This is significantly below the threshold of 4km for EIA reinserted by the 2023 amending regulations and is also considerably below the screening threshold set out in the 2011 (Agricultural) regulations. Such removal is associated with access requirements and does not result in the amalgamation or enlargement of existing fields or change in the layout of the lands. I have concluded above that significant effects on biodiversity are not likely as a result of such works.

The development does not involve the recontouring of the lands by, for example, the levelling off hills or by infilling of hollows (by removing or shifting earth or rocks), or other use or drainage works. While 3rd parties refer to extensive excavations at the construction compound site, I note that ground levels in this area do not vary significantly and no significant excavation will be required. Notwithstanding the exclusion of the substation at further information stage, it was indicated at that point that minimal earthworks and levelling works would be required in this area. The Environmental Report clearly states that the topography of the lands will not be impacted as the panels can be installed to existing topography, without excavation or alteration of levels. Inverter / transformer containers will be sited on areas of hardstanding (14.5-sq.m.) which may require some localised levelling and foundation works, however, such works are not significant in nature and would not constitute recontouring of the lands.

Having regard to the purpose and to the nature and extent of the works in the subject case, I would conclude that such non-agricultural development, would not constitute rural restructuring and, therefore, would not be considered sub-threshold development requiring preliminary screening or EIA.

The application is accompanied by an Environmental Report. Section 2 comprises EIA Screening, however, the application does not provide Schedule 7A information or refer thereto. I refer to Form no. 1 appended to this report and conclude that preliminary screening or EIA is not required.

12.2. AA Screening

Introduction

The subject site comprises an area of c.112ha in three parcels located at Swordlestown North and Swordlestown South, Co. Kildare. The lands are in agricultural use, comprising arable fields, improved agricultural grassland and treelines / hedgerows. A number of drains flow northwest through the site.

The proposed development comprises the construction of a solar PV development on the site, consisting of:

1. The installation of c. 197,010 no. solar panels on ground-mounted frames.
2. 43 no. single storey electrical inverter/ transformer container units, security fencing, a CCTV system with pole mounted cameras and landscaping works;
3. The upgrading of an existing farm entrance off the L2023 and the creation of a new entrance from the L2023 to provide access to the Northern Area;
4. The provision of a new internal access road for c.170 m to provide access to a temporary construction compound;
5. All associated ancillary development works.

More detailed descriptions of the site and the proposed development are set out in section 1.0 and 2.0 of this report above.

The site lies within the Liffey Catchment and is traversed by two watercourses. These watercourses are not assigned a water status by the EPA, however, they flow northwest to the Broadfield Stream which discharges into the Naas Hospital Watercourse/ Stream (IE_EA_09L011300), which is noted to be of good status. Section 10.4 above describes the pattern of drainage in this area.

Surveys:

The Stage 1 AA Screening Report submitted with the application states that a habitats survey was undertaken in September 2021 by qualified ecologists. Wintering bird

surveys were undertaken on 4 no. occasions between October 2021 and Jan 2022, in accordance with referenced methodologies.

There is no reference to consultations with external bodies in the AA Screening report. I note that the planning application was referred to the Development Application’s Unit (DHLGH), which made submissions in relation to archaeological heritage aspects of the development only.

Relevant European sites using Source-Pathway-Receptor model.

The development site is not within or immediately adjacent to any European Site.

Relevant European Sites within the wider area are set out below:

Site	Location	Pathway
Poulaphouca Reservoir SPA	c.5.5km east	Possible (ex-situ)
Wicklow Mountains SPA	c.10km east	Possible (ex-situ)
Wicklow Mountains SAC	c.9km east	No
Mouds Bog SAC (02331)	c.9.5km northwest	No
Pollardstown Fen SAC	c.11.5km west	No
Red Bog SAC	c.7km east	No
North Dublin Bay SAC 000206	c.40+km downstream	Weak hydrological connection. Development within the catchment of the River Liffey which discharges to Dublin Bay, and of the Grand canal which also discharges to the Liffey / Dubin Bay.
South Dublin Bay SAC 000210		
S. Dublin Bay & River Tolka Est. SPA 004024		

The hydrological connection to the Dublin Bay sites is indirect and weak and I refer to Section 10.4 above. Intervening land use, separation distance and nature of the intervening watercourses means that water quality in the European sites will not be negatively affected by any contaminants or silt from site clearance and other

construction activities. Potential dilution and settling effects would address any potential event arising. There are no hydrological connections or other pathways to other identified sites.

The construction phase will not therefore result in significant environmental impacts that could affect European Sites within the wider catchment area. There would be no operational emissions from the development. With the exception of Poulaphouca Reservoir SPA and Wicklow Mountains SPA, the above sites can be excluded from stage II assessment having regard to their separation from the subject sites and the lack of a pathway or mechanism for significant effects.

Wicklow Mountains SPA is located more than 10km from the site, and its qualifying interests are Merlin and Peregrin Falcon. I note that neither the first nor third parties report sightings of these species in the area and that the National Biodiversity Database contains no records of these species within the vicinity of the site. It is concluded therefore that significant effects on the conservation objectives of the Wicklow Mountains National Park can be screened out from further consideration.

The site has the potential to accommodate ex-situ foraging or roosting activity of QI's for Poulaphouca Reservoir SPA and this site is therefore brought forward for further screening. I concur with the conclusions of the applicants AA Screening Report in this regard.

AA Screening:

Conservation objectives for Poulaphouca Reservoir SPA (12/10/2022):

Objective: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

Code	Common Name	Scientific Name
A043	Greylag Goose	Anser anser
A183	Lesser Black-backed Gull	Larus fuscus

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Potential effect mechanisms:

The development is located approx. 5.5km from the SPA. There are no hydrological connections to this European Site and there is no potential for direct loss or fragmentation of habitats within the site. Potential effects therefore arise from

- Potential loss of ex-situ foraging lands or disturbance / displacement of qualifying interests.
- Potential collision risk.

The SPA site synopsis report notes that Poulaphouca Reservoir SPA is of national importance for its Greylag Goose population, which is one of the largest in the country. It provides the main roost for the birds, with feeding occurring mostly on improved grassland outside of the site. The applicant's Screening Report notes that the National Biodiversity Data Centre (NBDC) holds no records of Greylag Goose in this area, and the wintering bird surveys did not record this species using the site. There are no submissions on the file indicting that the site or its surrounds provides an ex-situ habitat for greylag goose, and potential significant effects on this qualifying interest are therefore screened out.

The SPA Site Synopsis report also notes that the reservoir attracts roosting gulls during winter, most notably a large population of Lesser Black-backed Gull. While the applicant's Screening Report notes that the National Biodiversity Data Centre (NBDC) holds records of Lesser Black-backed Gull within 2km of the site, their winter surveys did not identify this species on the site. My own observations during an inspection of the site support the applicants' findings. The screening report does acknowledge the potential of the site to support foraging activity but concludes that given the abundance of available suitable agricultural lands in the vicinity of the site and closer to the SPA, that this is not a site of importance for this QI.

Third parties argue that Lesser Black-backed Gull have been recorded in the vicinity of the site and have submitted evidence in this regard. While the presence of the QI on the subject site has not been specifically identified, I acknowledge that there is potential for its use of these lands. Such use would not appear to be frequent or significant in nature, however, given the results of the wintering bird surveys undertaken. The third-party submissions confirm that these and other lands in the surrounding area offer potential foraging habitat for this QI. Any occasional ex-situ use of the subject site by this species would be part of a pattern of use of lands in the wider area rather than reliance on these lands.

I conclude therefore that while there may be occasional use of the lands by the qualifying interests of the SPA, the available information does not indicate that the site comprises an important ex-situ foraging or roosting site for the species. Having regard to the extent of lands available within the area surrounding the SPA, there is, and will likely continue to be, a sufficiently large habitat to maintain its populations on a long-term basis notwithstanding the development of these lands. I therefore conclude that significant impacts on the range, distribution or population of this qualifying interests are not considered likely and that significant effects on the conservation objectives of the SPA are not likely.

In terms of the risk of collision, the AA Screening Report notes that the low reflectivity design of panels and grid pattern reduce glint and glare and potential for collision. I note that these are industry standard design features for solar panels to maximise efficiency and output, while the grid patterns is used to allow for thermal expansion of the cells when the panels heat in the sun.

There is little evidence to conclude that solar PV poses a significant risk of fatality risk to birds. A review by RSPB (2014) of the impact of solar farms found that the bird collision risk from solar panels is very low, and that there is likely to be more of a risk arising from associated infrastructure, such as overhead power lines. In this regard and having regard to absence of overhead lines or other such infrastructure on the site, combined with separation from the SPA and the current low frequency of use of use of the site by QI species, it is not considered that there is a likelihood of significant effects on the qualifying interests of the SPA by reason of collision with panels.

In-Combination Effects:

Surrounding lands are generally in agricultural and equestrian use, with Punchestown Racecourse in occasional use for large scale events. There are no permitted or constructed solar farms in proximity to the site which would have in-combination effects on qualifying interests.

The construction of a grid connection to Dunnstown Substation will require the laying of a cable along public roads. Such development would be subject to separate screening for appropriate assessment. This has the potential to result in silt / contaminated run-off to watercourses during construction works, however, having regard to the limited extent and duration of such works and separation from downstream European sites, significant effects are not considered likely.

AA Screening Conclusion:

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, it has been concluded that the proposed development individually or in combination with other plans or projects would not be likely to have a significant effect on Poulaphouca Reservoir SPA or any other European site, in view of the said sites' conservation objectives, and Appropriate Assessment (and submission of a NIS) is not therefore required. This determination is based on the following:

- The information on file, which is considered adequate to undertake a screening determination.
- the nature and scale of the proposed development.
- the separation of the proposed development from European sites and the nature and extent of intervening land uses.
- the lack of meaningful ecological connections to European sites with regard to the Source-Pathway-Receptor model.

This screening determination is not reliant on any measures intended to avoid or reduce potentially harmful effects of the project on a European Site.

13.0 Recommendation

13.1. Having regard to the foregoing it is recommended that permission be granted for the proposed development.

14.0 Reasons and Considerations

Having regard to;

- a) The nature, scale and extent of the proposed development.
- b) The national targets for renewable energy contribution to the overall national grid.
- c) The national, regional and local policy support for developing renewable energy, in particular:
 - i. Climate Action Plan 2023
 - ii. Climate Action and Low Carbon Development (Amendment) Act 2021
 - iii. Project Ireland 2040 National Planning Framework (2018)
 - iv. National Development Plan 2021-2030
 - v. National Energy Security Framework (April 2022)
 - vi. National Energy & Climate Action Plan 2021-2030
 - vii. Eastern & Midland Regional Assembly Regional Spatial & Economic Strategy 2019-2031
 - viii. Kildare County Development Plan 2023 - 2029
- d) The relationship with surrounding development and with the setting of Gowran Grange House
- e) Measures proposed for the construction, operation and decommissioning of the development.
- f) The submissions on the file, and
- g) The documentation submitted with the application and appeal including the further information submitted to the Board on 20/02/2023.

It is considered that, subject to compliance with the conditions set out below, the proposed development would not have an unacceptable impact on the character of the landscape or on cultural or archaeological heritage, would not seriously injure the visual and residential amenities of the area, would be acceptable in terms of public health, traffic safety and convenience, would not have undue impacts on surrounding land uses, would not have an unacceptable impact on ecology or on any European Site, would not lead to an increased risk of flooding within the site or adjoining lands, and would make a positive contribution to Ireland's requirements for renewable energy in accordance with national regional and local policy.

The proposed development would therefore be in accordance with the proper planning and sustainable development of the area.

Appropriate Assessment Screening

The Board noted that the proposed development is not directly connected with or necessary to the management of a European Site.

In completing the screening for Appropriate Assessment, the Board accepted and adopted the screening assessment and conclusion in the Inspector's report in respect of the identification of the European sites which could potentially be affected, and the identification and assessment of potential significant effects of the proposed development, either individually or in combination with other plans or projects, on these European sites in view of the site's Conservation Objectives. The Board was satisfied that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on Poulaphouca Reservoir SPA or any other European site, and an Appropriate Assessment and submission of a Natura Impact Statement is not therefore required.

15.0 Conditions

1.	<p>The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars submitted to the planning authority on the 10th day of June 2022 and the further plans and particulars submitted to An Bord Pleanála on 20th day of February 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.</p> <p>Reason: In the interest of clarity.</p>
2.	<p>The period during which the development hereby permitted may be carried out shall be 10 years from the date of this order.</p> <p>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.</p>
3.	<p>All of the environmental, construction, ecological and heritage-related mitigation measures, as set out in the Environmental Report and its associated appendices, Biodiversity Management Plan and the Construction and Environmental Management Plan, and other particulars submitted with the application, shall be implemented in full by the developer, except as may otherwise be required in order to comply with the conditions of this Order.</p> <p>Reason: In the interests of clarity and of the protection of the environment during the construction and operational phases of the development.</p>

4.	<p>(a) The permission shall be for a period of 35 years from the date of the commissioning of the solar array. The solar array and related ancillary structures shall then be removed and the site reinstated unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period.</p> <p>(b) The development shall be decommissioned in accordance with the Decommissioning Plan submitted to Kildare County Council on 04/02/2022.</p> <p>(c) On full or partial decommissioning of the solar farm, or if the solar farm ceases operation for a period of more than one year, the solar arrays, including foundations/anchors, and all associated equipment, shall be dismantled and removed permanently from the site. The site shall be restored in accordance with this plan and all decommissioned structures shall be removed within three months of decommissioning.</p> <p>Reason: To enable the planning authority to review the operation of the solar farm having regard to the circumstances then prevailing, and in the interest of orderly development.</p>
5.	<p>This permission shall not be construed as any form of consent or agreement to a connection to the national grid or to the routing or nature of any such connection.</p> <p>Reason: In the interests of clarity</p>
6.	<p>(a) No artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.</p> <p>(b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or the road.</p> <p>(c) Cables within the site shall be located underground.</p> <p>(d) The inverter/transformer stations and switch gear rooms shall be dark green in colour.</p>

	<p>Reason: In the interests of clarity and of visual and residential amenity.</p>
7.	<p>No development shall take place within 60m of the external perimeters of Recorded Monuments (KD024-006 and KD024-008 (barrow-ring barrow).</p> <p>Reason: To mitigate potential impacts on recorded monuments</p>
8.	<p>No solar panels shall be installed within the visual corridor to the south of Gowran Grange House. Such visual corridor shall be defined generally by Tree reference no. 131 to the east and by the gravel ridge (Height 139m) to the west.</p> <p>The final definition of this corridor and revised layout of development, shall be submitted to and agreed in writing with the planning authority prior to the commencement of development on the site.</p> <p>Reason: To integrate the development with the character and setting of Gowran Grange House.</p>
9.	<p>The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard:</p> <ol style="list-style-type: none"> a. the developer shall employ a suitably-qualified archaeologist prior to the commencement of development, to assess and monitor all excavations carried out on site which shall be subject to licence from Dept of Housing, Local Government and Heritage. b. The developer shall notify the planning authority in writing at least four weeks prior to the commencement of any site operation relating to the proposed development, and c. The archaeologist shall monitor the removal of all damaged piles or large rocks to facilitate piling.

	<p>d. Should archaeological material be found, the archaeologist may have the work stopped, pending a decision on how to proceed. The developer should be prepared to be advised by the Dept of Housing, Local Government and Heritage with regard to any necessary mitigation actions and should facilitate the archaeologist in recording any material found.</p> <p>e. The developer shall submit a report to the planning authority and the Dept. of Housing, Local Government and Heritage, containing the results of the archaeological monitoring.</p> <p>In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.</p> <p>Reason: In order to conserve the archaeological heritage of the area and to secure the preservation in-situ or by record and protection of any archaeological remains that may exist within the site.</p>
10.	<p>a) The site shall be landscaped in accordance with the details submitted on 04/02/2022 and 10/06/2022.</p> <p>a) Hedgerow planting to the west of Watch House Cross, along the boundary with the R441 and L2023 shall incorporate semi-mature planting. Temporary screening mitigation shall be provided to screen potential glint and glare effects on the surrounding road network until proposed planting has matured sufficiently, in accordance with section 10.6 of the Environmental Report submitted with the planning application. Detail in this regard shall be agreed in writing with the planning authority prior to the commencement of development.</p> <p>b) All planting shall be adequately protected from damage until established. Any plants which die, are removed, or become seriously damaged or diseased, within a period of five years from the completion of the development shall be replaced within the next planting season</p>

	<p>with others of similar size and species, unless otherwise agreed in writing with the planning authority.</p> <p>Reason: In the interest of visual amenity and to allow the early establishment of screen planting.</p>
11.	<p>Within 12 months of the commencement of operations at the development, an operational glint and glare assessment shall be carried out and submitted for the written agreement of the planning authority to confirm compliance with the conclusions of the assessment contained in the Environmental Report and further plans and particulars submitted to the planning authority on the 10th day of June 2022. Where necessary, additional mitigation measures shall be undertaken to achieve compliance in this regard, to be agreed in writing with the planning authority.</p> <p>Reason: To mitigation any potential post-construction impacts on adjacent lands, property and public road network.</p>
12.	<p>The construction of the development shall be managed in accordance with a Construction and Environmental Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:</p> <ul style="list-style-type: none"> (a) Location of areas for construction site offices and staff facilities; (b) Details of site security fencing and hoardings; (c) Details of on-site car parking facilities for site workers during the course of construction; (d) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network; (e) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

	<p>(f) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;</p> <p>(g) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;</p> <p>(h) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains;</p> <p>(i) Measures for the short-term storage and removal / disposal of excavated material to minimise potential pollution including drainage from topsoil areas to be directed to a settlement area where necessary;</p> <p>(j) Construction hours shall not extend beyond 0800 hours Monday to Friday and 0800 hours to 1400 hours on Saturdays. No construction work shall take place on Sundays.</p> <p>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.</p> <p>Reason: In the interest of amenities, public health, and safety.</p>
13.	<p>All works shall be carried out in accordance with “Guidelines On Protection of Fisheries During Construction Works In And Adjacent To Waters”, Inland Fisheries Ireland (2016). Any cable crossings of watercourses shall be subject to an agreed method statement with Inland Fisheries Ireland.</p> <p>Reason: To protect the quality of surface waters.</p>
14.	<p>Prior to the commencement of any other development works on site, sightlines at the upgraded and proposed new entrances on the L2023 shall be provided in accordance with TII Geometric Design of Junctions DN-GEO-03060 Standards June 2017, and the proposed passing bays on the</p>

	<p>L2023 shall be constructed in accordance with the detailed requirements of the planning authority.</p> <p>Reason: In the interest of traffic safety</p>
15.	<p>Prior to the commencement of development, a finalised construction traffic management plan shall be submitted to and agreed in writing with the planning authority, which plan shall include:</p> <ul style="list-style-type: none"> a) Details of the timing and routing of construction traffic to and from the construction site and works areas, and associated directional signage, and in particular proposals to manage the delivery of abnormal loads including the routing and scheduling of such movements. b) Measures to obviate queuing of construction traffic on the adjoining road network. c) Measures for the safe movement of construction traffic traversing the L-20231 between Areas 5, and areas no. 2 and 3, in accordance with the details set out in section 12.2.2 of the Environmental Report. <p>Reason: In the interests of traffic safety and convenience.</p>
16.	<ul style="list-style-type: none"> a) Construction activity shall be managed in accordance with a construction noise and vibration management plan, which shall be developed after consultation with stakeholders and the local community and agreed in writing with Kildare County Council prior to the commencement of development. This plan should be subject to periodic review and shall specify the construction practice, including measures for the suppression and mitigation of on-site noise and vibration. b) The plan shall be developed having regard to, and all construction activity shall be undertaken in accordance with, best practise guidelines, including BS 5228-1:2009+A1:2014, parts 1 & 2.

	<p>(c) The mitigation measures described in section 8.9 of the Environmental Report and in the further submission received by An Bord Pleanála on 20/02/2023 shall be implemented in full.</p> <p>(d) Prior to the commencement of development, a plan for the phased development of the site shall be submitted to and agreed in writing with the planning authority which shall seek to maximise separation from site boundaries at commencement of works and move progressively across the site.</p> <p>Reason: In order to protect the amenities of the area</p>
17.	<p>a) The construction noise and vibration management plan shall include a comprehensive monitoring programme with monthly reporting to Kildare County Council, or at other such intervals as may be required by the planning authority.</p> <p>b) Noise monitoring locations shall be agreed in writing prior to commencement of development.</p> <p>c) Monitoring of the construction phase shall be carried out by a suitably qualified competent person to ensure that all environmental noise and vibration mitigation measures are satisfactorily implemented.</p> <p>Reason: In order to protect the amenities of the area.</p>
18.	<p>a) Operational noise monitoring shall be undertaken in accordance with a scheme to be submitted to and agreed in writing with the Planning Authority.</p> <p>b) Within 12 months of the commissioning of the proposed development, the results of operational noise monitoring shall be submitted to the planning authority to confirm compliance with the conclusions of Chapter 8 of the Environmental Report in this regard. Where necessary to achieve compliance in this regard, additional mitigation measures shall be undertaken, to be agreed in writing with the planning authority.</p>

	<p>c) 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.</p> <p>d) All sound measurement shall be carried out in accordance with ISO Recommendation 1996:2007: Acoustics - Description and Measurement of Environmental Noise.</p> <p>Reason: To protect the amenities of property in the vicinity of the site.</p>
19.	<p>During the construction phase, the developer shall adhere to the 'Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes', published by the National Roads Authority in 2006. In particular, there shall be no blasting or pile driving within 150 metres of an active badger sett during the breeding season (December to June) or construction works within 50 metres of such an active sett during the breeding season.</p> <p>Reason: In the interest of wildlife protection.</p>
20.	<p>a) The developer shall enter into connection agreement(s) with Irish Water in respect of any water connection, prior to commencement of development.</p> <p>b) Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services. Such arrangements shall include the use of swale features designed in accordance with the CIRIA SuDS Manual C753 (2015).</p> <p>Reason: In the interest of public health.</p>
21.	<p>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</p>

	<p>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.</p> <p>Reason: In order to ensure a satisfactory standard of development.</p>
22.	<p>Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site on cessation of the project coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.</p> <p>Reason: To ensure satisfactory reinstatement of the site.</p>
23.	<p>Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or other security to secure the provision and satisfactory reinstatement of public roads that may be damaged by construction transport, coupled with an agreement empowering the local authority to apply such security or part thereof to the satisfactory completion of any part of the development. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.</p> <p>Reason: To ensure the reinstatement of public roads that may be damaged by construction traffic.</p>
24.	<p>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</p>

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.

Conor McGrath

Senior Planning Inspector

10/11/2023

Appendix 1
Form 1 EIA Pre-Screening
[EIAR not submitted]

An Bord Pleanála Case Reference		ABP-314320-22					
Proposed Development Summary		10-year planning permission for the construction of solar PV development on a c.129 ha site.					
Development Address		Swordlestown North and Swordlestown South, Co. Kildare					
1. Does the proposed development come within the definition of a 'project' for the purposes of EIA? (that is involving construction works, demolition, or interventions in the natural surroundings)			<table border="1"> <tr> <td>Yes</td> <td style="text-align: center;">✓</td> </tr> <tr> <td>No</td> <td></td> </tr> </table>	Yes	✓	No	
Yes	✓						
No							
2. Is the proposed development of a class specified in Part 1 or Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) or does it equal or exceed any relevant quantity, area or limit where specified for that class?							
Yes		Class	EIA Mandatory EIAR required				
No	✓		Proceed to Q.3				
3. Is the proposed development of a class specified in Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) but does not equal or exceed a relevant quantity, area or other limit specified [sub-threshold development]?							
		Threshold	Comment (if relevant)				
No	✓	Solar energy development is not listed as a class of development for the purposes of EIA under Part 2 of Schedule 5, within the Planning and Development Regulations, 2001 (as amended). Any associated grid connection application under S.182 would not constitute a class of development under Schedule 5.	No EIAR or Preliminary Examination required				

		Having regard to the purpose, nature and to the limited extent of the works, such non-agricultural development would not constitute rural restructuring under Class 1 of Part 2 of Schedule 5.		
Yes		NA		Proceed to Q.4

4. Has Schedule 7A information been submitted?		
No	NA	Preliminary Examination required
Yes	NA	Screening Determination required

Inspector: _____ **Conor McGrath** _____ Date: _____ **10/11/2023** _____

