



An
Bord
Pleanála

Inspector's Report

ABP-303636-19

Development	Photovoltaic Solar Farm
Location	Killeenlea, Ardrass Lower & Killadoon, Celbridge County Kildare
Planning Authority	Kildare County Council
Planning Authority Reg. Ref.	18250
Applicant(s)	ELGIN ENERGY SERVICES LTD
Type of Application	Permission
Planning Authority Decision	Grant with Conditions
Type of Appeal	Third Party
Appellant(s)	1. Celbridge Solar Farm Concerned Residents 2. Jimmy Liscombe
Observer(s)	None
Date of Site Inspection	18 th of September 2019
Inspector	Caryn Coogan

1.0 Site Location and Description

- 1.1. The site is located in a rural part of Co. Kildare in the townlands of Killeenlea, Ardrass Lower and Killadoon. The subject site is located c. 2km west of Celbridge and c. 6km south of Maynooth.
- 1.2. The regional road R403 Celbridge to Clane road forms a long south-eastern site boundary. A local road, L5066, forms the northern site boundary, and there 21 No. dwellings backing onto the site along its northern boundary. These dwellings were built in the nineteenth century. There are other one-off houses to the north of the site located along the L5066.
- 1.3. The overall site comprises of 11 No. fields currently in agricultural use with an area of c. 47.44Ha. The fields are bounded by hedgerows and trees which provide screening of the lands from the north and east. There is a mature hedgerow of trees along the Regional Road.
- 1.4. There is a disused two storey farm building and open barn adjacent to the proposed solar farm. These structures are owned by the landowner of the proposed solar farm site.
- 1.4. The topography of the site is broadly level. There is a stream to the west of the site.
- 1.5 Appendix A includes photos, maps and development plan extracts.

2.0 Proposed Development

- 2.1. The proposed development is for a 10 year permission for a solar farm on 47.44Ha including a 38k substation, 25No. invertor stations, 23No. mounted cameras and a new access off the L5066.
- 2.2. The number of panels will be governed by site specifics (e.g. ground conditions, proximity to hedgerows). Existing field openings will be used during construction period, and majority of vegetation will be retained.
- 2.3. The panels will be set at a southern direction between 0.6mand 08m above ground level, within rows separated by a distance between 2m-6m depending on topography of the site.

2.4. The installation has a life expectancy of 30 years. The site will also be used for sheep grazing, and after 30 years the infrastructure will be decommissioned and removed.

3.0 **Planning Authority Decision**

3.1. **Decision**

The planning authority granted planning permission for the development subject to 33No. conditions, and Condition No. 2 stated the permission was for 5 years only. Condition No. 3 states the structures shall be removed from the site not later than 30 years from the initial operation.

3.2. **Planning Authority Reports**

3.2.1. Planning Reports

The Planning Report formed the basis for the decision.

The Further information was lodged on the 7th of December 2018 which included the following:

- Buffer perimeter increased to min. 10metres
- Setback from dwellings to the north increased to at least 50m
- Additional screen planting
- Residential Amenity study included
- There will be circa 110,000 panels
- Visual Impact assessment
- Heritage Impact Assessment
- Glint and Glare Study

3.2.2. Other Technical Reports

Area Engineer: No objections

Environment: No objections

Transportation: Additional Information

Water Services: No objection

Heritage Officer: Further Information Required

EHO: No objections

Fire Services: No objections

Conservation Officer: Further Information required.

3.3. Prescribed Bodies

An Comhairle Ealaoin: No report.

An Taisce: No report

Failte Ireland: No report.

National Heritage Council: No report.

DAHRRGA: No objection subject to archaeological monitoring conditions.

Air Corp: Further information required

Irish Aviation Authority: Further Information required.

3.4. Third Party Observations

There were 28No. submissions received which were addressed by the planning authority in a request for further information. Concerns expressed included: lack of national and local policy; scale, undermine agricultural sector; development unsuitable for this rural area; impact on residential amenities; concerns about capacity of road and traffic impact; construction hours, noise and light; drainage of lands and potential flooding; impact on flora and fauna; inadequate screening, glint and glare; scale; radiation, removal of mature trees and CCTV cameras.

4.0 Planning History

There is no relevant planning history associated with the site.

There have been many Planning Applications for the development of Solar Farms in County Kildare as well as surrounding counties. The following is a list of recent decisions by the Board for development in Co. Kildare:

ABP Ref. ABP-303577: Permission was Refused on 23/05/2019 for a solar photovoltaic farm of 26Ha at Guidenstown South and Rahilla Glebe, Co. Kildare because it was located in a Special Landscape Character Area which had limited capacity to accommodate the uses without adverse impact on the character of the landscape.

ABP Ref. ABP-300389: Permission granted for a a ten-year permission for the construction of an up to 5MWp Solar PV farm, with a maximum export capacity of 4MW comprising approximately 18,000 no. photovoltaic panels on ground mounted frames within a site area of 6.08 hectares and associated ancillary development at Pollardstown The Curragh Co. Kildare

ABP Ref. PL09.249348: Permission was refused in March 2018 for development on 19.33Ha in Southgreen Road. Having regard to its location, it was considered it would seriously injure the visual amenities of the area and would conflict with the development plan objective which seeks to protect the landscape.

ABP Ref. PL09.248329: Permission was refused in June 2018 for development on 10.6Ha site near Athy having regard to its proximity to the River Barrow and the development objectives as detailed in the Development Plan.

ABP Ref. PL09.249155: Permission was granted in March 2018 for development on 31.24Ha near Killeel.

5.0 Policy Context

Kildare County Development Plan 2017-2023

- 5.1 Chapter 8 of the Plan refers to Energy and Communications, Chapter 10 to Rural Development, Chapter 14 to Landscape, Recreation and Amenity, and Chapter 17 to Development Management Standards.
- 5.2 Chapter 8 of the Plan specifically refers to Solar Energy in Section 8.7. The Plan states *'Like all forms of development, solar farms have the potential to affect the landscape and*

natural and built heritage. Cumulative impacts may also arise with farms located close to each other. Site selection is vital for potential solar farms as solar resource, topography and proximity to the grid must be considered. There are also many environmental considerations associated with solar farms.'

5.3 Policies SE1, SE2, SE3 and SE4 all refer to solar energy.

SE1 promotes the development of solar energy subject to environmental safeguards.

SE2 refers to the considerations solar energy development proposals will have to have regard to, including (summary):

- site selection, by focussing in the first instance on developing on previously developed and non-agricultural land;
- where a proposal involves greenfield land, whether poorer quality land has been used in preference to higher quality land;
- decommissioning and site rehabilitation plans;
- glint and glare;
- visual and landscape impact;
- the guidance provided in relation to compatibility with landscape designations of Tables 14.3 and 14.4 of Chapter 14 of the plan;
- the need for, and impact of, security measures such as lights and fencing;
- Conservation of heritage assets including the impact of proposals on protected views and scenic routes etc.

Section 10.4.8 of Chapter 10 refers to Green Energy Projects and states that rural areas have the potential to be harnessed for renewable energy projects including solar energy.

Chapter 14 refers to the landscape and Map V1.14.1 identifies Celbridge as being in the Landscape Character Area *Northern Lowlands* and having a Low Sensitivity classification. Class 1 areas are described as areas with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area.

Section 14.4.2 refers to Impact of Development on Landscape. Table 14.3 identifies the likely compatibility between a range of land uses and principle landscape areas. The Northern Lowlands are considered to have a high capacity.

INTERNATIONAL GUIDELINES

Solar PV Development Guidelines in the UK.

There are a number of guidance documents available in the UK. While they do not have a statutory basis in the Irish context, they are useful in informing the planning and environmental issues which arise.

Planning Guidance for the development of large scale mounted solar PV systems' prepared by BRE National Solar Centre (UK) 2013

This national guidance provides best practice planning guidance in respect of how large ground mounted arrays are developed setting out planning considerations and requirements. It provides advisory information on planning application considerations including construction and operational works, landscape / visual impact, ecology, historic environment, glint and glare and duration of the planning permission. Guidance is included on the information which should accompany a Landscape and Visual Impact Assessment and on EIA Screening procedures.

NATIONAL GUIDELINES / POLICY

National Planning Framework

Objective 55 – promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.

Government White Paper '**Ireland's Transition to a Low Carbon Energy Future 2015 – 2030**', published in December 2015.

The White Paper sets out a framework to guide energy policy between now and 2030. It includes an objective to 'accelerate the development and diversification of

renewable energy generation' and increase the country's output of electricity from renewable sources'. It states that this will be achieved through a number of means including wind, solar PV and ocean energy.

Section 137 - Solar photovoltaic PV technology is rapidly becoming cost effective for electricity generation, not only compared with other renewables but also compared with conventional forms of generation. The deployment of solar energy in Ireland has the potential to increase energy security, contribute to our renewable energy targets and support economic growth and jobs. Solar also brings a number of benefits like relatively quick construction and a range of deployment options including solar thermal for heat and solar PV for electricity.

Planning and Development Guidance Recommendations for Utility Scale Solar Photovoltaic Schemes in Ireland October 2016

This is a research paper which was funded by the SEAI. It sets out the recommended policy framework for renewable energy, including reference to relevant targets, and provides information on the achievements to date. It is noted that at the beginning of October 2016, planning applications for over 100 utility scale solar PV (USSPV) developments had been submitted to planning authorities across the state. It was estimated that, if implemented, these would contribute at least 594MW of renewable electricity. However, it was also noted that there is currently no REFIT scheme to subsidise the generation of electricity from USSPV sources. The document also provides guidance on the assessment of proposed solar farm developments. It is suggested that this guidance may contribute to the evidence base that will inform the development of Section 28 planning guidance for Utility Scale Solar Photovoltaic (USSPV) developments in Ireland in due course.

REGIONAL POLICY

Regional Planning Guidelines for the Greater Dublin Area 2010-2022

Section 6.6.5 states- “Renewable energy provision within the GDA will continue to become a more central issue in terms of environmental concerns, economic viability and development, and employment creation in green technologies. Approximately 5,500 MW of renewable generation by 2020 is required to meet the government target of 40% total consumption from renewable energy. The achievement of these national targets will require development of renewable energy options such as offshore wind generation, marine based energy generation, solar energy and geothermal both within, adjacent to, and outside the GDA. Subject to the provision of adequate capacity in the Grid to receive, transport and distribute energy, renewable energy provision will assist efforts to meet Kyoto Protocol targets, increase security of supply, and bolster energy supply levels catering for future demands arising from a knowledge and ICT intensive economy and will assist the decoupling of economic growth from carbon emission levels”.

5.1. Natural Heritage Designations

There are four European sites within a 15km radius. They are the Rye Water Valley/Cartron SAC (Site Code 001398) located c.6.2km to the north-east; Ballynafagh Bog SAC (Site Code 000391) c. 9.8km to the south-west; and, Ballynafagh Lake SAC (Site Code 001387) located c. 10.3km south-west of the site. Red Bog SAC (Site Code 000397) located 14.95Km south of the site.

5.2. EIA Screening

Solar farms are not listed as a class of development under Part 1 or 2 of Schedule 5 of the Planning and Development Regulations 2001 (as amended) whereby a mandatory EIA would be required, or, therefore, a sub-threshold development, as defined by Article 92 of the Planning and Development Regulations, 2001 (as amended).

Notwithstanding this, the having regard to the characteristics of the proposed development and its location on land which is not environmentally sensitive, as

discussed in this report, I do not consider that the development will give rise to significant environmental effects.

6.0 The Appeal

6.1. Grounds of First Appeal from ‘Concerned Residents’

The proposed solar farm is the largest solar farm in Co. Kildare, it is the size of 48No. rugby pitches, and it is adjacent to a settlement.

Two large scale solar farms were refused by the Board, PL26.247217 and PL06.247780 in Wexford in the absence of a plan-led approach. The decision also highlighted the need to protect high quality agricultural land.

6.1.1 *Plan-Led Development*

The proposal is premature pending the adoption of national, regional and local planning guidelines. The sheer scale of the development has the potential to impact on rural character, landscape, agricultural land use and residential amenity. The proposal is premature in advance of proper planning policy.

The applicant should have submitted a detailed strategic analysis for County Kildare identifying the classification of the subject lands from an agricultural perspective and where they rank in terms of suitability. A plan-led approach must be considered in order to counter-act a haphazard piecemeal approach.

6.1.2 *Agricultural Land Use*

The Senior Inspector in the recent Tomhaggard case in Co. Wexford considered the loss of farmland to be a material planning issue, and this has not been addressed in the current appeal. Policy SE2 of the county development plan specifically requires the applicant to demonstrate whether the proposed use of any agricultural land is necessary and poorer quality land is been used in preference to higher quality land. The applicant has failed to comply with Policy SE2.

6.1.3 *Landscape Impact*

The subject site is located in the Northern Lowlands in terms of Landscape Character Areas in the county development plan. Section 8.7 states solar farms have the potential to affect the landscape and natural built heritage. The proposal is an

alien and industrial landuse on lands south of Celbridge and it will have a material and adverse impact on the established landscape character of the area. In particular St. Patricks Hill is to the south of the site and attracts pilgrims from around the world. This location was not considered in the visual appraisal. The proposal will represent a dominant and excessive impact on the landscape which does not have the capacity to readily absorb such large-scale development.

The proposed screening includes indigenous planting which does not provide adequate screening for the entire year.

The proposed Station Building and storage containers will have a significant visual impact. The structures and hardstanding area are very much industrial in character and incongruous to the rural area. It will be viewed upon entering the L5066 from the R403 and radically alter the rural character of the area.

6.1.4 ***Residential Amenity and Property value***

The proposal will have a dominant and overbearing impact on neighbouring properties. The proposal will create an alien landscape as viewed from the houses, and its scale when viewed from these properties is wholly inappropriate. The proposal could impact on the future sale of their properties.

The residents do not consider the separation distance from adjoining residences of 50metres to be sufficient, it should be at least 70metres or ideally 100m from their rear boundaries. Houses to the north of L5066 have not been afforded the same setback

6.1.5 ***Traffic Safety***

The junction of R403 and L5066 is dangerous. It is located within 160-170metres of St. Wolstands Secondary School, and Kildare Educate Together. It is a busy junction during school drop off and collection times. The proposal will generate additional traffic during construction and operational phase. The intensification of use of the junction will result in a traffic hazard. The Transportation Department recommended a refusal due to lack of sightlines, insufficient information regarding traffic management, carparking, drainage and footpath/ pedestrian crossing. The Planning report considered the traffic issues related only to the construction phase. However, there is a traffic problem with the proposals.

6.1.6 ***Equine Impact***

There is a large stud farm in the immediate vicinity and the impact on the animals has not been investigated. The transformer station could impact on highly strung horses. There should be no noise impact on training thoroughbred horses. The glint and glare may also affect the animals.

6.1.7 ***Connection to the grid***

Planning permission should not have granted if this issue is unresolved. If Elgin cannot get route to Shackleton Road to connect to the substation, then poles will have to be erected which may be near dwellings.

The Board is requested to give consideration of S182 of the PDA within the meaning of transmission. The proposal involves an electrical substation which constitutes an electrical plant. The proposal therefore constitutes strategic infrastructure.

6.1.8 ***Flood Risk***

The site is subject to pluvial flood risk. There is a high water table in the area. To cover the 47 hectares with panels is like concreting over the same area and will give rise to a flood risk.

6.1.9 ***Noise Impact***

The residents are concerned about the potential for a humming noise.

6.1.10 ***Grant of permission***

In the event of a grant of permission, the residents seek the relocation of the substation where it will not be visible to the residents. The footpath and the public lighting should be extended up the L5066 to the end of the solar farm.

There is no community gain associated with the project.

6.1.11 ***Second Appeal from Jimmy Liscombe***

An adjoining applicant has appealed the decision to grant on the following grounds:

- From inside their house the family would have full view of the fronts of at least 10No. panels in the fields to the west which could cause unbearable glare.

- Their existing hedge is maintained at a height of 6 foot and if it grew another 2foot it would be difficult to maintain and it would ruin the enjoyment of their garden.
- The longterm risks of the solar farm are a concern in terms of health risks, electromagnetic radiation, the road, CCTV cameras.

Unfair pressure been put on planning authorities to permit solar farms with no national guidance.

6.2. Applicant Response

6.2.1 Response to Mr. Jimmy Liscombe

- His dwelling is a single storey dwelling, and there is a 50metre buffer area from his rear garden boundary to the solar panels. The nearest solar panel is in fact 95metre from his dwelling. The nearest CCTV camera is in excess of 200metre from his property, and they will not be angled towards the dwelling. The panels will not be visible form his house but may be visible form his garden. Solar panels absorb light and do not reflect it, and there will be no impact on the dwelling. Photographs submitted, 3 and 4 are from an elevated positions, a treehouse and slide, and if the solar panels are visible from these elevated positions they will not impact on the entire garden area.
- The long-term health risks are not supported by any documentation or evidence. All cameras will be directed at the solar panels and not at adjoining properties.
- The fact there are no national guidelines is not a relevant planning consideration and not a valid reason to refuse permission.

6.2.2 Response to Concerned Residents

- There are larger solar farms permitted in Kildare and nationally than the proposed development. The Tomhaggard case constantly referenced in the appeal was challenged and subsequently approved. There are several appeal cases assessed on their own merits without national guidelines. The quantum of land, 47Ha is comparatively small to agricultural landholdings and it will be continued in agricultural use.

- Visual Impact was addressed in a report prepared by Marcoworks that was submitted as further information. St. Patricks Hill was assessed and the nearby houses, and the impact was considered to be insignificant.
- There will be minimal impact to the nearby road provided the conditions imposed by the planning authority are adhered to.
- The inverters will be located away from stud farms to ensure no impact on adjoining stud farms.
- The connection to the grid does not form part of this planning application, and at 38Kv it does not comprise a SID.
- Flooding was considered as part of the proposal and pluvial flooding was considered to be a minor risk.

A ten year permission to construct the development is requested as opposed to a five year permission, to allow for flexibility in delivering the solar farm.

6.3. Planning Authority Response

The planning authority raised no new issues in its response to the third-party appeal.

7.0 Assessment

The main issues in this appeal are those raised in the grounds of appeal and I am satisfied that no other substantive issues arise. The issue of appropriate assessment also needs to be addressed. The issues can be dealt with under the following headings:

- Compliance with Planning Policies
- Visual Amenities
- Traffic and Access
- Glint and Glare
- Other Issues

- Appropriate Assessment

7.1. Compliance with Planning Policies

The following documents are relevant to the proposed development:

- The *National Development Plan 2018-2027* seeks as a national strategic outcome to transform into a low-carbon and climate resilient society.
- The *National Planning Framework 2040* supports the objective of the national development plan. In Chapter 5 with regard to Energy Production states that the rural areas have and will continue to contribute to the energy needs of the country providing sustainable renewable energy. Adapting to new energy technologies is essential.
- Section 6.6.2 of the *Regional Planning Guidelines* addresses the electricity transmission network. The demand in the east is to rise significantly by 2025.
- The Government White Paper entitled '*Ireland's Transition to a Low Carbon Energy Future 2015-2030*', published in December 2015. The White Paper is an energy policy update, which sets out a framework to guide policy up to 2030. The vision is to achieve a low-carbon energy system that targets greenhouse gas (GHG) emissions from the energy sector, that will be reduced by 80-95% (compared with 1990 levels) by 2050, and will fall to zero or below by 2100.

Paragraph 137 states- '*Solar photovoltaic (PV) technology is rapidly becoming cost competitive for electricity generation, not only compared with other renewables but also compared with conventional forms of generation. The deployment of solar in Ireland has the potential to increase energy security, contribute to our renewable energy targets, and support economic growth and jobs. Solar also brings a number of benefits like relatively quick construction and a range of deployment options, including solar thermal for heat and solar PV for electricity. It can be deployed in roof-mounted or ground-mounted installations. In this way, it can empower Irish citizens and communities to take control of the production and consumption of energy. Solar technology is one of the technologies being considered in the context of the new support scheme for renewable electricity generation which will be available in 2016*'.

As stated above Chapter 8 of the *Kildare County Development Plan 2017-2023* is relevant to the proposal. The development plan has an objective to encourage solar energy infrastructure (SE1). The planning histories over the past two years in Co. Kildare reveal, there has been an increase in planning applications for the provision of solar farms throughout the county.

Section 8.7. of the Plan states *'Like all forms of development, solar farms have the potential to affect the landscape and natural and built heritage. Cumulative impacts may also arise with farms located close to each other. Site selection is vital for potential solar farms as solar resource, topography and proximity to the grid must be considered. There are also many environmental considerations associated with solar farms.'* Policies SE1, SE2, SE3 and SE4 all refer to solar energy. In particular SE 2, sets out location criteria and sets down considerations for dealing with planning applications – such as decommissioning, glint & glare, visual and landscape, security fencing/lighting, heritage assets, ecology, noise and cumulative impact. These considerations are largely addressed with in the succeeding sections of this Inspector's Report.

In principle, I am satisfied, the proposed development is in compliance with the relevant national and local policies cited above.

7.2 Visual Amenities

The solar PV arrays are arranged in rows east/west – angled towards the southern sun at 25 degrees – with the highest point being 3.0m above ground level. The metal support frames will be driven into the ground to a depth of not more than 2.0m. The panels will be separated sufficiently to allow grass to grow between the rows – to be grazed by sheep. The panels will be set back a minimum of 6.0m from the site boundary – 50m in the instance of dwellings along the northern site boundary.

The amount of buildings/plant required is minimal. The largest building will be the single-storey 38Kv sub-station located adjacent to the L5066, at the site entrance. There will be 25No. smaller prefabricated inverter stations throughout the site linked

by an internal hardcore track, which will link back to the L5066 access road. There are 23No. mounted CCTV cameras.

A 2.5m high deer fence will surround the solar PV arrays – set inside the boundary hedgerows.

It is proposed to connect the project to the ESB network via an existing 110kV Griffinrath substation by means of a c.2km underground cable, which is not included in this application.

A detailed analysis of Visual Impact assessment was carried out in March 2018 by *Macroworks*. The site is flat and has the benefit of mature treelined hedgerows and roadside boundaries. The area is not the subject of any landscape designations. The Kildare County Development Plan indicates that the site is located within a Landscape Character Area defined as 'Northern Lowlands', which is Class 1 Low Sensitivity. These areas are noted as having 'capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area'. Table 14.3 of the Plan indicates that solar PV development has a 'High' compatibility with Class 1 landscapes, including the Northern Lowlands.

The visual assessment included detailed photomontages which have been examined on site as part of this assessment. It is clear that the proposal will result in a low to moderate visual impact. It is only visible within the immediate vicinity of the site, and the mature landscaping ensures the proposal has the benefit from a high degree of visual absorption in the landscape. Mitigation measures include additional planting and reinforcement of existing hedgerows. The proposal will be screened from dwellings to the north, and a 50metres buffer area will be provided. The maximum height of the panels is 3metres, and the proposed structures are low in height, and will not create a dominant element on the landscape.

7.3 Traffic and Access

The construction phase of the solar farm is approximately 12-16 weeks using specialised teams who will stay locally. It is proposed to provide a new access onto the L5066 road which also serves the 21No. dwellings backing onto the site. The access is 70metres west of the junction of the L5066 and the R403. The Road

Section of the planning authority had concerns regarding the sightline to the east of the proposed entrance. The Road Design Report also expressed concern about the level of traffic during the construction phase and the provisions of parking. The report fails to acknowledge an existing entrance to the site located closer to the junction with the Regional Road and a large agricultural shed and associated yard area. In my opinion, the proposed new entrance is a considerable improvement in traffic safety terms to the existing entrance. The construction phase is temporary, 3-4 months duration, and to refuse the development on traffic grounds during the construction phase is unwarranted, as it is short lived heavy use of the local road and one junction onto the R403. The Operational Phase will only require a number of maintenance trips.

Sight visibility at the junction of the L5066/R403 priority junction, to the northeast of the appeal site, is adequate. In my opinion, overall, the volume of traffic will not be significant, and will result in only minor delays and obstruction for other road users. The disruption will be of limited duration. The fact that this road is used by trainers to walk racehorses, is not a reason for refusal of planning permission. The proximity to local schools is not a reason for refusal either as the access arrangements and traffic will not interfere with traffic at the two local schools which are positioned along the R403 close to Celbridge.

7.4 Glint and Glare

The planning application documentation included the Glint and Glare Study. There are no Irish guidelines relating to glint & glare. Ground-based glint will generally occur in the early morning or late evening. Sunshine hours are indicated in Figure 2.2 – maximum average 35% in summer. Panels are fixed at an angle of 16 degrees to the horizontal. The site is well-contained, due the solar arrays generally being at a higher level than the surrounding area. Solar PV arrays are designed to absorb sunlight – the reflectance of glass coating on panels being 9% compared with 19% in normal window glass. Water bodies on a calm day have similar reflective properties to solar PV arrays, and snow is considerably higher. Each dwelling in the vicinity was examined and road receptors. It was found there was no possibility of glint and glare affecting the receptors, apart from one property, a single storey dwelling in Ardrass Lower along the R403 which has the potential for glare for 12 minutes per day during the summer

in early morning. This is not considered to be a material issue to warrant a refusal in this instance. In short, the proposal will not create any nuisance effect generated from glint and glare at the surrounding dwellings or road networks. There is a setback of 50metres from the rear boundaries of the 21No. dwellings located along the northern site boundary. I recommend a 1metre landscaped berm be provided within this buffer area to allay any negative perceptions of the residents towards the development. Existing mature, roadside and field, hedgerows will screen the development. Existing and proposed screening will result in no material impact on residential amenity. Any glimpses of glint would be no worse than viewing sunlight reflection from window or greenhouse glass. Motorists are use to driving during periods when the sun is low in the sky – providing a much more intense form of glint or dazzle than solar panels ever could

The analysis Appendix C of the Further Information received on 07/12/2018, relates to the issue of glint and glare and its potential to impact on surrounding aviation receptors. The intensity of glint is much higher than glare. Weston Airport is located northeast of the proposal. Casement Aerodrome is located south east. Dublin airport is 20km to the northeast and is beyond the 15Km range requested by the Dublin Aviation Authority. The results of the SGHAT for aviation receptors show there is no potential for any glare to occur along the runway approaches at Weston Airport or Casement Aerodrome.

7.5 Other Issues

In terms of Policy SE 2 of the Kildare County Development Plan the proposed proposal complies with the following criteria:

Site selection was determined by the proximity and ease of connection to the electricity grid. The land will remain in agricultural use throughout the lifetime of the solar farm. The proposal is the temporary use of agricultural land (30 years). While there will be a reduction in the productivity of the land, there will be a net gain in CO2 emissions and the provision of renewable energy to the Celbridge area.

The applicant, Elgin Energy, is a well established and experienced in delivering solar farms in the UK, and are committed to reinstating lands after the lifetime of the project.

The decommissioning phase outlined in the application is acceptable and a condition should be attached to ensure its implemented.

There are no proposals for lighting as part of the development, and no proposals for external lighting of the public road.

There are no recorded noise issues with solar panels. Cooling of inverter stations require internal fans which emit some localised noise only immediately adjacent to the inverter stations.

A Flood Risk Assessment was carried out as part of the submission documents. The subject site is located in a Flood Zone C, and therefore is at a low risk of flooding. The proposed development will increase the rate of discharge from the current pre-development run-off as there are limited areas of hard standing proposed. The design of the erected panels ensures the rain will fall more evenly on the land underneath and no materially affect how the subsurface water is dispersed throughout the site.

The Architectural Heritage Assessment indicated the proposal will not have an impact on the views and prospects of Coolcarrigan House, a protected structure, in the vicinity of the site.

The 23No. CCTV cameras will be placed on the site for security purposes as per Drawings No. DG0002. The cameras will only be focused into the site, as the site will be unmanned during operational stage, and monitored remotely during its lifetime.

Archaeological and Built Heritage Assessment carried out and there are no recorded archaeological sites within the subject lands, however there are a number of sites outside of the site. A programme of pre-development archaeological testing where subsurface excavation works area proposed should be conditioned into the permission.

The EclA submitted concluded there were some opportunities for the better management of habitats on the site. Due to the limited removal of trees and hedgerows there is not anticipated to be any loss of breeding bird habitats. The report concluded the development is anticipated to incur a net gain of habitat within the vegetated area of the site.

7.6 Appropriate Assessment

An Appropriate Assessment (AA) screening report has been submitted by the applicant. I follow the staged approach to screening for appropriate assessment as recommended in both EU Guidance and by the Department of Environment, Heritage and Local Government: -

1. Description of the plan or project and local site or plan area characteristics.
2. Identification of relevant Natura 2000 sites and compilation of information on their qualifying interests and conservation objectives.
3. Assessment of likely significant effects-direct, indirect and cumulative, undertaken on the basis of available information.
4. Screening statement with conclusions.

Project Description and Site Characteristics

The proposed development is described in this report and in the application documentation.

Relevant Natura 2000 Sites, Qualifying Interests and Conservation Objectives

Three Natura Sites 2000 are identified as being within a 15km radius of the site.

These sites are:

Site Name and Code	Distance from Proposed Development	Qualifying Habitats and Species
001398, Rye Water Valley/Cartron, SAC	Located 5.4km north of the proposed development	Petrifying Springs, Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail
000391, Ballynafagh Bog, SAC	Located 13.3km south west of proposed development	Active raised bogs priority habitat, degraded raised bogs still capable of natural regeneration, depressions on peat substrates of the Rhynchosporion
001387, Ballynafagh Lake, SAC	10.3km south-west Of proposed development	Alkaline Fens, Desmoulin's Whorl Snail and Marsh Fritillary.
000397 Red Bog, SAC	14.98km south of proposed development	Transition mires and quaking bogs.

The site, via adjacent streams, is hydrologically linked to nearby rivers and other water features that has potential to carry run-off waters generated during

construction and operation into local surface water drainage system. However there is no pathway connecting the proposed development to the Rye Water Valley/ Carton site, as the European site lies upstream of the subject lands.

Assessment of Likely Effects

The site is not within a designated site, thus there would be no direct impacts from the proposed development. The cited SACs are water dependent ecosystems, and therefore, any changes to the groundwater regime or surface water quality as a result of the proposal could have adverse effects on the habitats and species for which the SAC's are designated. However, there is no hydrological pathway from the site to the cited European sites due to distance and locations.

Screening Statement and Conclusions

There are no hydrological links between the development site and the European sites namely Rye Water Valley/ Carton SAC (Site Code 001398), Ballynafagh Bog SAC (Site Code 000391) and the Ballynafagh Lake SAC (Site Code 001387) and a resultant hydrological impact is not envisaged.

In conclusion, it is reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on the Rye Water Valley/Carton SAC (Site Code 001398), Ballynafagh Bog SAC (Site Code 000391) and the Ballynafagh Lake SAC (Site Code 001387) or any other European site, in view of the sites' Conservation Objectives, and a Stage 2 Appropriate Assessment and submission of a NIS is not therefore required.

8.0 Recommendation

I recommend that planning permission should be granted, for the reasons and considerations as set out below.

9.0 Reasons and Considerations

Having regard to the provisions of national and regional policy objectives in relation to renewable energy, the provisions of the Kildare County Development Plan 2017 – 2023, the nature and scale of the proposed development, the continued agricultural use and improved biodiversity which would result and the proximity of a potential grid connection, it is considered that, subject to compliance with the conditions set out below, the proposal would support national and regional renewable energy policy objectives, would not conflict with the provisions of the Development Plan, would not seriously injure the residential amenities of property in the vicinity, would not have unacceptable impacts on the visual amenities of the area, would not result in a serious risk of pollution, would be acceptable in terms of traffic safety and convenience, and would, therefore, be in accordance with the proper planning and sustainable development of the area.

10.0 Conditions

1. 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 on the 21st day of December 2017 and by the further plans and particulars received on the 20th day of March, 2018, 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.

Reason: In the interests of clarity

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

Reason: In the interest of clarity

3. (a) All structures including foundations hereby authorised shall be removed not later than 30 years from the date of commissioning of the development, and the site reinstated unless planning permission has been granted for their retention for a further period prior to that date.

(b) Prior to commencement of development, a detailed restoration plan, providing for the removal of the solar arrays, including all foundations, anchors, inverter/transformer stations, substation, CCTV cameras, fencing and site access to a specific timescale, shall be submitted to, and agreed in writing with, the planning authority. 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.

Reason: To enable the planning authority to review the operation of the solar farm over the stated time period, having regard to the circumstances then prevailing, and in the interest of orderly development.

4. No works shall commence without the submission for the approval of the planning authority final details for the chosen solar panels.

Reason: In the interest of clarity.

5. (a) No artificial lighting shall be installed or operated on site unless authorised by a prior grant of permission.

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

(c) Cables within the site shall be located underground.

(d) The inverter/transformer stations shall be dark green in colour. The external walls of the proposed substation shall be finished in a neutral colour such as light grey or off-white and the roof shall be of black slate or tiles.

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

6. Before construction commences on site, details of the structures of the security fence showing provision for the movement of mammals shall be submitted to, and agreed in writing with, the planning authority.

Reason: To allow wildlife to continue to have access across the site

7. 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.

Reason: In the interest of clarity.

8. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –
 - (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,
 - (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
 - (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

9. Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services.

Reason: In the interests of public health.

10. Prior to the commencement of development, a detailed restoration plan including timescale for its implementation, shall be submitted to, and agreed in writing with the planning authority. On full or partial decommissioning of the solar farm, the site, including access road, shall be restored to agricultural use, and the structures removed in accordance with the plan outlined in the submission documents within six months of decommissioning/ cessation, to the written satisfaction of the planning authority

Reason: To ensure the satisfactory reinstatement of the site on full or partial cessation of the project.

11. The construction of the development shall be managed in accordance with a Construction Management Plan, to include a Construction Traffic Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including hours of working, noise management measures and off-site disposal of construction/demolition waste.

Reason: In the interests of public safety and residential amenity.

12. The landscaping scheme shown on drawings, as submitted to the planning authority on the 7th day of December, 2018 shall be carried out within the first planting season following substantial completion of construction works.

All planting shall be adequately protected from damage until established. Any plants which die, are removed or become seriously damaged or diseased, within a period of five years from the completion of the development, shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interest of residential and visual amenity.

13. A one metre earthen berm shall be constructed along the northern boundary of the site within the 50metre buffer area to the rear of the dwellings and its shall be planted with a hedgerow of native species, prior to commissioning of any part of the solar PV array.

Reason: In the interests of visual amenity.

14. The proposed new access to the site shall be constructed in accordance with the requirements of the planning authority. The L5006 shall be surfaced at the developers expense from the proposed entrance to the site to the junction of the L5066 with the Regional Road R403.

Reason: In the interests of traffic safety.

15. 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.

Reason: To ensure satisfactory reinstatement of the site.

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

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the

Caryn Coogan
Planning Inspector

18th of October 2019