



An
Bord
Pleanála

Inspector's Report ABP-303577-19

Development

Permission for a 12 megawatt solar photovoltaic (PV) Farm within a site area of 26ha consisting of PV panels covering an area of up to 185,000m², sub-station, up to 5 inverter transformer stations, underground cabling, fencing and associated site services.

Location

Guidenstown South and Rahilla
Glebe, Co. Kildare

Planning Authority

Kildare County Council

Planning Authority Reg. Ref.

18/328

Applicant(s)

BNRG Neoen Holdings Ltd.

Type of Application

Permission

Planning Authority Decision

Refuse

Type of Appeal

First Party

Appellant(s)

BNRG Neoen Holdings Ltd.

Observer(s)

None

Date of Site Inspection

2nd April, 2019

Inspector

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1.0 Site Location and Description

- 1.1. The subject site lies approximately 4.2km to the north west of the town of Kildare and 4.5km to the south east of Rathangan, in the townlands of Guidenstown South and Rahilla Glebe, Co. Kildare. The Grand Canal is located approximately 3km to the north of the site. The R401 Regional Road runs to the west and south of the site and the M7 Motorway lies approximately 5km to the south. The area is rural in its nature and there are a number of one-off houses within 1km of the site.
- 1.2. The lands contained within the proposed development site are currently agricultural lands and are bound to the south and south west by hedgerows with commercial forestry to the north. The Dunmurry Springs Golf Course is located immediately to the south of the site.
- 1.3. The site has a stated area of 26ha and comprises two fields. The topography of the site is undulating and rising towards Dunmurry Hill, which has its peak at 233m OD. The site itself is located on the south western slopes of Dunmurry Hill between 160m OD and 200mOD. The site itself is set back from the public road and is to be accessed via the Dunmurry Springs Golf Club and an access track which runs through the golf course. The existing 38kV substation in Kildare, located 3.3km to the south of the site will provide a connection point to the national grid. There are archaeological monuments identified within the proposed development site with additional features noted in the wider area.

2.0 Proposed Development

Permission is sought for a 12MW a ground mounted solar photovoltaic (PV) farm within a site area of 26ha consisting of consisting of solar photovoltaic panels covering an area of up to 185,000m² on ground mounted steel frames, 1 no on-site substation/control room and palisade fencing, up to 5 no inverter/transformer stations, underground cables and ducts, boundary security fence, use of existing entrance to public road at Dunmurry Springs Golf Club, upgrade to parts of the existing track from the public road to the proposed solar farm, new and upgraded internal tracks, CCTV cameras, two temporary site compounds and all associated site services and works within the townlands of Guidenstown South and Rahilla Glebe, Co. Kildare. Permission is sought for a period of 10 years.

- 2.1. The development of the PV solar panels will generate electricity from sunlight and will export this electricity to the national grid as a clean, quiet and renewable source of electricity. The solar panels will be connected to inverter cabins by trenched cables, where the electricity will be converted from direct current (DC) to alternating current (AC). This AC will then be fed to the 38kV substation in Kildare where it will be exported to the national grid. An indicative grid connection route is identified in the Planning & Environmental Report submitted with the planning application, but does not form part of this application. It is anticipated that the development would provide for an installed capacity of up to 12MW and will have an operational life of 30 years.
- 2.2. The infrastructure associated with the proposed development will include a number of elements including:
- Solar panels and mounting system – the panels will be mounted to the steel frames and will be positioned at an angle of 20 degrees from the horizontal to ensure best solar absorption. The individual panels are approximately 1.977m x 0.996m in size and are made of specialist materials which maximise the absorption of natural light. The panels will be mounted at a maximum of 2.8m above the ground level and will be arranged using 4 modules per frame. The panels will be laid out in rows with a distance of approximately 2.5m between the rows.
 - Inverter cabins – the inverters are used to convert the direct current electricity to alternating current in order to be fed into the national grid. The development proposes 5 inverter cabins measuring 6m long x 2.5m wide and 2.65m in height and will house the transformer and inverter. The inverter cabins will be located along the central spine of the proposed solar farm and will comprise pre-fabricated metal structures which will be dark green in colour.
 - The ESB Sub-Station – this building is to be located at the south western corner of the site and will export power to the national grid via a buried grid connection cable to the nearest ESBN distribution or transmission substation. The building will have a footprint of approximately 53m² with an

overall height of approximately 4.815m. The ESB room, switchgear room and metering and telecoms room will be housed within this structure.

- Trenched electrical cabling – the cabling will be laid in shallow trenches, a maximum of 1.2m deep, that will run parallel to the solar panels and will link the panels to the inverter cabins.
- Security CCTV and fencing – the site will be bound by a 2m high deer fence. The submitted drawings relating to the fencing suggests that the fencing will run to the ground with 300mm high mammal gaps provided every 100m. The information presented in the Planning & Environmental Report offers an either / or suggestion in relation to the provision of access for mammals. CCTV units will be installed on posts rising to 4.8m in height to monitor the solar farm remotely.
- Internal access track – the existing access track through the golf club lands will be increased from 3m to 4m and a 3.5m- 4m wide access track will be constructed within the site to accommodate the construction of the development.
- Landscaping – a detailed landscaping and visual impact has been prepared in support of the proposed development. Existing trees and hedgerows will be retained and supplemented and existing boundaries will not be altered save where access is necessary and as indicated on submitted plans. New hedgerows are proposed within the site
- Temporary construction compounds – 2 temporary compounds are proposed, with one being located adjacent to the entrance to the golf club and the second adjacent to the solar farm entrance.
- Site entrance – access to the site is through the existing entrance to the golf club and over the existing 3m wide track which runs through the course to the entrance to the subject site.

2.2.1. The planning application was accompanied by a number of documents including:

- Relevant plans and particulars
- Letter of consent from owners of the land

- Planning & Environmental Report with appendices including:
 - Construction & Environmental Management Plan
 - Consultation letters
 - Public Consultation Information
 - Photomontages
 - Figures
 - Ecology
 - Cultural Heritage
 - Landscape Visual Impact Assessment
 - Glint & Glare Study

3.0 Planning Authority Decision

3.1. Decision

The Planning Authority refused planning permission for the proposed development for the following reasons:

1. The site is located within the Landscape Character Area defined as the Chair of Kildare this is characterised as a Class 4 'Special' landscape. "Areas with low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape having regard to special sensitivity factors". Solar Developments are categorised as being of least compatibility within the Landscape Character Area, as set out in table 14.3 of the Plan. Further a number of ridgelines are located on the subject site, and the Kildare County Development Plan 2017-2023 indicates that solar developments are very unlikely to be compatible within 300m of a ridgeline. Furthermore the proposed development is located in close proximity to a designated scenic route and a number of Scenic Views as set out in the Kildare County Development Plan 2017-2023. Having regard to the exposed and elevated nature of the site, and the scale, nature and design of the proposed development, it is considered that the proposed solar development would form a prominent and obtrusive feature in the landscape and would be highly

visible in views from its environs which would adversely impact on the character of the area. The proposed development would therefore be contrary to the provisions of the Kildare County Development Plan 2017-2023 and accordingly, would be contrary to the proper planning and sustainable development of the area.

2. It is considered that, by reason of the nature and extent of the proposed development, the elevated and exposed nature of the site, the proposed development would be visually obtrusive at this location, would appear overly dominant on the rural landscape having regard to the contours of the surrounding landscape, and would set an undesirable precedent for similar development which would be contrary to the provisions of the Kildare County Development Plan 2017-2023, in particular Policies LA 2 and LU 1 which seek to protect and enhance the County's landscape and ensure that development will not have a disproportionate visual impact. The proposed development would, therefore seriously injure the amenities of the area and accordingly would be contrary to the proper planning and sustainable development of the area.

3.2. Planning Authority Reports

3.2.1. Planning Reports

A planning report was prepared by the Assistant Planner, countersigned by the SEP and formed the basis for the PAs decision to refused permission. The report presented the information relating to the proposed development and summarised all relevant submissions and policy objectives for the proposed development. This report also included an AA and EIA screening reports. The assessment considered the principle of the proposed development in terms of national, regional and local policy and guidelines which support the development of renewable energy schemes.

The report considers that the development, if permitted would have significant negative impacts on the landscape character of the area in light of the protected ridgelines traversing the site and its designation as a Special Landscape. The report concludes that there are serious concerns regarding the site selection and justification for the proposed development at the subject location where other potential sites to accommodate a solar farm are available throughout the county.

3.2.2. Other Technical Reports

- Area Engineer: Further information required in relation to Autotrack.
- Water Services: No objection subject to condition relating to roadside drainage.
- Heritage Officer: Notes no objection as the development will not give rise to significant negative impacts on sites designated for the protection of habitats of species. Conditions recommended.
- Transportation Section: No objections subject to conditions.
- Environment Section: No objections subject to conditions.
- Kildare Fire Service: No objection.
- EHO: No objections subject to conditions.

3.2.3. Prescribed Bodies

- Dept. of Defence: Glint & Glare study and Aviation Impact Assessment to be carried out.
- Irish Aviation Authority: No observations from an aerodrome licencing perspective but application should be required to engage with the Department of Defence.
- Dept. of Culture, Heritage & Gaeltacht: Further information required in relation to archaeology and the submission of a geo-physical survey to be carried out on the site.

3.2.4. Third Party Observations

Three objections were received by Kildare County Council in relation to the proposed development from the following parties:

Peter Cole

Michael Hussey

Padraig Houlihan

The objections raise similar issues and these objections are summarised as follows:

- Impact on prime agricultural land when alternatives are available.
- Issues in relation to sun glare and road users.

- Privacy issues in relation to the proposed CCTV cameras.
- Impact on the right of way and access to livestock during construction phase in particular.
- Visual impact of the development on Dunmurry Hill
- The development is contrary to the proper planning and sustainable development of the area.
- Impact of the development on surface water and hydrology regime in the area where flooding has occurred.
- Impacts on the operation of the golf club and the potential for balls may cause damage to the panels.

4.0 Planning History

- 4.1. There is no relevant planning history associated with the subject site.
- 4.2. The following appeal relates to a site approximately 1km to the south of the current proposed development site.:

PL09.249348 (PA ref 17/388) – Permission refused by KCC a 10 megawatt solar photovoltaic farm comprising photovoltaic panels on ground mounted frames, one number single storey inverter/transformer station, one number single storey switchgear and associated transformer station, internal track, security fencing, closed circuit television/lighting poles, widening of an existing entrance onto the Southgreen Road and all associated ancillary site development and landscaping works at Southgreen Road, in the townland of Loughandys, County Kildare. The application was refused on appeal for the following stated reason:

The site of the proposed development is located in the Chair of Kildare, Special Landscape Character Area as indicated in Chapter 14 of the Kildare County Development Plan 2017-2023 which has a low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape having regard to special sensitivity factors. Having regard to the open, exposed and elevated nature of the site, and the scale, nature and design of the proposed development, it is considered that the proposed solar farm would form a prominent and obtrusive feature in the

landscape, which would be highly visible in views from its environs and which would adversely impact on the character of the local setting. The proposed development would seriously injure the visual amenities of the area and would conflict with this development plan objective which seeks to protect the landscape. The proposed development would, therefore be contrary to the proper planning and sustainable development of the area.

5.0 Policy Context

5.1. INTERNATIONAL GUIDELINES

5.1.1. 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.

5.1.2. 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.

5.2. NATIONAL GUIDELINES / POLICY

5.2.1. 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.

5.2.2. 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.

5.2.3. 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.

5.3. REGIONAL POLICY

5.3.1. 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”.

5.4. LOCAL POLICY

Kildare County Development Plan 2017 – 2023.

- 5.4.1. 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.
- 5.4.2. 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.’
- 5.4.3. Policies SE1, SE2, SE3 and SE4 all refer to solar energy. SE1 promotes the development of solar energy subject to environmental safeguards. SE2 seeks to ensure that the assessment of solar energy proposals will have regard to:

- site selection, by focussing in the first instance on developing solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value;
- where a proposal involves greenfield land, whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays;
- the nature of solar farms as normally temporary structures. Decommissioning and site rehabilitation plans will be required providing for the land be restored to its previous use;
- the proposal's impact through glint and glare on neighbouring uses and on transportation and aviation safety;
- the proposal's visual and landscape impact and the potential to mitigate these impacts through, for example, screening with native hedges
- the guidance provided in relation to compatibility with landscape designations of Tables 14.3 and 14.4 of Chapter 14 of this plan;
- the need for, and impact of, security measures such as lights and fencing;
- the need to ensure that heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on protected views and scenic routes etc. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets, e.g. historic demesnes.

Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;

- the need to consider ecology so as to avoid or minimise damage on important species or protected habitats;
- the energy-generating potential, which can vary for a number of reasons including latitude and aspect;
- the design of the scheme needs to be carefully considered including layout, scale, land cover panel, height, landscaping, access roads, noise, cumulative impacts and the design of ancillary elements;

- 5.4.4. Section 10.4.8 of Chapter 10 deals with Green Energy Projects and states that rural areas have the potential to be harnessed for renewable energy projects including solar energy.
- 5.4.5. Chapter 5 of the Plan deals with Economic Enterprise and Tourism and includes Policy ECD 23 which seeks to “Facilitate and encourage the development of the alternative energy sector and to work with the relevant agencies to support the development of alternative forms of energy where such developments are in accordance with the proper planning and sustainable development of the area.”
- 5.4.6. Chapter 14 relates to Landscape Recreation and Amenity and identifies that the subject site is located within the southern area of the Chair of Kildare Landscape Character Area. This landscape is a Class 4 and is noted as having special sensitivity and having a low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape having regard to special sensitivity factors.
- 5.4.7. The following scenic routes are noted in the vicinity of the site:
- Scenic route 14 Views to and from Redhill, Central Kildare Plains and boglands on the R401 and adjoining lands.
 - Scenic route 15 Views to and from Dunmurry and Views of Central Kildare Plains and Boglands on the R401 and adjoining roads.
 - Scenic route 16 Views of Chair of Kildare and Views of Central Kildare Plains and Boglands on the R415 and adjoining roads.
- 5.4.8. 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 Chair of Kildare is identified as being ‘least likely to be compatible with solar energy’.

5.5. **Natural Heritage Designations**

The site itself is not located within any designated site but is within 5km of the Pollardstown Fen SAC, Site Code 000396, which is located to the east of the site. In addition, Mouds Bog SAC (Site Code 002331) is approximately 8km to the east and River Barrow and River Nore SAC, (Site Code 002162) is approximately 10km to the

southwest of the site. The subject site is used for agricultural purposes with some hedgerows and tree boundaries. There is a commercial forest to the north and a golf club to the south.

6.0 The Appeal

This is a first party appeal against the decision of Kildare County Council to refuse planning permission for the proposed development.

6.1. Grounds of Appeal

6.1.1. The grounds of appeal are presented in are summarised under the following headings:

- Location within 'Class 4 Special Landscape' Character area
- Compatibility of solar within landscape character area
- Location on ridge line
- Proximity of scenic route and scenic views
- Exposed and elevated nature of the site
- Precedent of the development.

6.1.2. It is submitted that the proposed development complies with national and local policy with regard to the provision of renewable energy. The appeal also notes that the national trend towards larger size solar projects continues and it is requested that the Dunmurry Solar Farm be considered as a medium scale project in the context of provision of utility scale projects rather than a large scale project. The appeal includes a Route Screening Analysis to demonstrate that the development is not extensively visible from the public roads due to topography and hedgerows and therefore, the development does not have a negative impact on the landscape character of the area or an unacceptable visual impact. It is submitted that the Planning Authority have overstated the degree of visual impact and has not had regard to the location of the site between a commercial forest and a golf club.

6.1.3. In terms of the potential impact of the development on the 'Chair of Kildare', the PA assessment has not acknowledged that Solar PV development can, under certain

circumstances, be compatible with Scenic Route and Scenic Views and contained within the landscape, when policies do not preclude same. The PA has not considered the individual merits of the proposed development, which sets an undesirable precedent. The appellant wishes to advise the Board of their proposal to develop a recreation and amenity trail, of approximately 4.2km, to enhance the amenity of the area. This trail, which is dependent on agreements with adjoining landowners is considered to be a significant planning gain.

- 6.1.4. Table 5-1 of the appeal seeks to provide a response to the criteria contained within Policy SE 2 of the Kildare County Development Plan. A full site selection process was undertaken by the applicants and it is submitted that the nature of a solar farm is a temporary land use change.
- 6.1.5. The development will follow the contours of the hill and will not break the ridgeline and the submitted Route Screening Analysis shows the extent that the proposed development will be visible from scenic routes within 5km of the site. In terms of the scale of the development, it is submitted that solar PV development requires a substantial landbank but the development will have a low visibility in the context of the subject site.
- 6.1.6. In terms of the issue of precedent, it is submitted that it is not relevant as each application must be considered on its own merits in relation to its location. The appeal document submits references a number of previous Board decisions in relation to solar farm developments. It is submitted that a refusal of permission would set a precedent that no solar development is permitted in this landscape area notwithstanding the policy objectives for the area, which should be read in a positive manner.

It is requested that permission be granted for the proposed development and the appeal includes a number of enclosures.

6.2. **Planning Authority Response**

The Planning Authority has responded to this appeal advising no further comments.

6.3. Observations

There are no observations noted in relation to this appeal.

7.0 EIA Screening

- 7.1.1. Schedule 5 of the Planning and Development Regulations, 2001 (as amended), sets out Annex I and Annex II projects which mandatorily require an EIAR. Part 1, Schedule 5 outlines classes of development that require EIAR and Part 2, Schedule 5 outlines classes of developments that require EIAR but are subject to thresholds. Solar farms are not listed as a class of development under either Part 1 or 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, and therefore, I conclude that a mandatory EIA, and the submission of an EIAR, is not required. I note that there are some projects under No. 3 of Part 2, 'Energy Projects' which relate to energy production, but suggest that none of these projects would be applicable to a solar farm as proposed. The Board will note that a similar conclusion has been reached in relation to previously decided solar farm developments.
- 7.1.2. In accordance with the 'EIA Guidance for Consent Authorities regarding Sub-threshold Development', 2003, the following is stated "there is a requirement to carry EIA where competent/consent authority considers that a development would be likely to have significant effects on the environment". The guidelines advise the criteria to be considered for the need for sub-threshold E.I.S. and this includes (i) characteristics of the proposed development, (ii) location of the proposed development, and (iii) characteristics of potential impacts. Schedule 7 of the Planning and Development Regulations, 2001 (as amended), sets out criteria for determining whether a sub-threshold development is likely to have significant effects on the environment and therefore would require an EIAR.
- 7.1.3. Article 92 of the Planning and Development Regulations, 2001, (as amended) defines sub-threshold development, as 'development of a type set out in Schedule 5 which does not exceed a quantity, area or other limit specified in that Schedule in respect of the relevant class of development'. In light of the above, the Board will note that I have determined that the solar PV farm development is not a development set out in Schedule 5 and therefore, I do not consider that the subject development is a 'sub-threshold development' for the purpose of EIA.

8.0 Assessment

8.1. Introduction

8.1.1. Having inspected the site and considered the information presented in support of the proposed development, together with the first party appeal and my site inspection, the following are the relevant issues in this appeal.

- Principle of Development
- Landscape / Visual Impact
- Impact on Residential Amenity
 - Visual Impact
 - Noise
 - Glint & Glare
 - Other Residential Amenity Issues
- Other Issues
- AA Screening

8.2. The Principle of the proposed development

8.2.1. In considering the principle of a proposed solar panel development it is appropriate that the Board have regard to both national, regional and local policy provisions as well as site specific objectives. It is notable that since the publication of the 2009 Renewable Energy Directive (2009/28/EC) that Ireland has a target objective requiring that 16% for all energy comes from renewable sources by 2020. This Directive is enshrined into national policy objectives. I refer the Board to Paragraph 130 of Ireland's 'Transition to a low carbon Energy Future 2015-2030 - White paper on Energy policy', which was published in December 2015, and which includes an explicit objective to reduce carbon emissions. In this regard, the development of solar photovoltaic systems is both support by policy and is considered an integral part of achieving this objective. In addition, Objective 55 of the National Planning Framework, seeks to promote renewable energy use and generation at appropriate

locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.

- 8.2.2. There is currently no national guidance in relation to solar panel developments in Ireland but in the absence of same, I have considered the content of the UK Guidelines '*Planning Guidance for the development of large scale mounted solar PV systems*'. These guidelines recommend that when solar panels are located in agricultural land there is a preference to locate them in poorer or more marginal agricultural land as opposed to fertile agricultural land.
- 8.2.3. In terms of regional policy, I would refer the Board to the Regional Planning Guidelines for the Greater Dublin Area, 2010 – 2022. Paragraph 6.6.5 of these Guidelines notes that the achievement of national targets will require the development of renewable energy options both within, adjacent to and outside the GDA.
- 8.2.4. In principle, I am satisfied that the nature of the proposed development generally accords with the requirements of both national and regional policy as it relates to the development of renewable energy developments.
- 8.2.5. In terms of local policy, the Kildare County Development Plan, 2017 – 2023, is the relevant policy document. The Plan deals with Solar Energy at Section 8.7 and Policy SE 1 seeks to promote the development of solar energy infrastructure within the county subject to environmental safeguards for the protection of natural or built heritage features, biodiversity, views and prospects. Policy SE 2 sets out a number of criteria which solar energy developments must have regard to including site selection, decommissioning, glint and glare, visual and landscape impacts, fencing and security, heritage, ecology, noise and cumulative impacts.
- 8.2.6. Of particular note, Policy SE 2 requires that the assessment of a development have regard to the visual and landscape impacts associated with solar farms as well as the compatibility of such developments with landscape designations as presented in Tables 14.3 and 14.4 of Chapter 14 of the Plan. In addition. Developments must also have regard to heritage assets. The subject site is located in a rural area of the county and on agricultural lands. The applicant submits that the land is of poor quality and will be maintained in low intensive agricultural use. The site is also located within the Chair of Kildare Landscape Character Area. This area is classified

as having a special sensitivity to development with a low capacity to accommodate uses without adverse impact on landscape. In terms of likely compatibility with specific land use, the Landscape Areas (Table 14.3) of the Kildare County Development Plan 2017-2023 provides that the Chair of Kildare has least compatibility with solar energy development.

- 8.2.7. In principle, I am satisfied that there is a presumption in favour of alternative energy projects, including solar PV energy, and this is acknowledged at National, Regional and County level. However, having regard to the location of the subject site, together with the scale of the proposed development, I note that there are site specific issues which are required to be considered and addressed prior to a positive decision issuing. These issues are considered further below in this report.

8.3. Landscape / Visual Impact

- 8.3.1. Having regard to the nature of the proposed development, the potential visual impact is considered a key issue. In support of the proposed development, the applicant has submitted a Landscape and Visual Impact Assessment, prepared by Deirdre Black Associates to identify and evaluate the potentially significant effects arising from the proposed solar farm. The subject site is located within an area of Co. Kildare which is rural in its character, and within the Chair of Kildare Landscape Character Area. In terms of sensitivity and value, the landscape is a Class 4 landscape with special sensitivity to development and low capacity to accommodate uses without adverse impacts on landscape. Solar farm developments are identified as being least likely to be compatible in the Chair of Kildare Landscape Character Area, in accordance with Matrix Table 14.3 of the County Development Plan. There are also a number of designated Scenic Routes in proximity to the site and the site also lies within 300m of a ridge line and scenic route.
- 8.3.2. The Visual Impact Assessment submitted, identifies Dunmurry Hill as an important landscape feature given its relative height compared to the surrounding plain and the visual relationship between it, adjacent hills and the surrounding low-lying land including the Curragh. Dunmurry Hill is also noted as a Site of Geological Interest in the Development Plan due to its Precambrian – Devonian Palaeontology. The sensitivity of the receiving landscape to change is considered medium to high. In this context, I note that the area of the proposed development has a low capacity to

accommodate change without significant impacts on the character of the landscape, and that the landscape is a regionally important landscape. The submitted assessment also presents a summary of mitigation measures which take account of the potential landscape and visual effects in the design and layout of the proposed solar farm.

8.3.3. The subject site covers an area of 26ha and the landscape is gently rising to the top of Dunmurry Hill. There are a number of one off houses in the vicinity of the site and within the lower slopes of the Hill. I also note the presence of the commercial forestry and golf course adjacent to the subject site. The site benefits from considerable hedgerow boundaries and treeline cover and there is an existing commercial tree farm located to the north of the site. However, and notwithstanding the presence of these existing features, there are a number of long and short range views towards the site from the surrounding public roads. The Board will note the intention of the applicant to retain and enhance approximately 1,475m of existing hedgerows within and abounding the site as well as proposals to establish approximately 1,600m of new native hedgerow planting. In support of the proposed development, the applicant has submitted a Zone of Theoretical Visibility map and photomontages to ascertain the visual impacts associated with the proposed development, including with and without any landscape features. The assessment concludes that given the low-lying nature of the solar farm, effective screening can be provided by relatively low existing vegetation, or intervening walls and buildings.

8.3.4. The most significant visual impact arises in views from the south and the south east, and in particular, in photomontage no. 3, at the Killeagh Crossroads to the south and along the R401, designated Scenic Routes 14 and 15 – and referenced in photomontage numbers 4 and 5. In addition, I consider that the visual impacts arising from the golf course would be significant. I would note that the photomontages submitted are taken from public roads, while the Planning Authority raised concerns in terms of the views at Dunmurry Hill or Grange Hill. The appellant submits that these locations are not publicly accessible and therefore, should not be necessary. In the appeal, the first party has sought to address the concerns of the Planning Authority as well as the reasons for refusal. The appeal includes additional commentary on the photomontages with additional montages in order to try and address the concerns raised. The appeal submits that while the site is elevated, the

assessment and Route Screening Survey have concluded that because it is relatively flat in nature, the solar farm is not extensively visually exposed and would not form a prominent or obtrusive feature and would not be visible in views from the environs except in localised views.

- 8.3.5. While I acknowledge the assessment submitted in support of the proposed development, I would not necessarily agree and have a real concern that the proposed development does not accord with the requirements of the Kildare County Development Plan as it relates to the protection of special landscapes. I would note that the site is open, elevated and highly visible from the surrounding area. I also acknowledge the proposed landscaping and mitigation measures proposed. In terms of the Development Plan policies, it is clearly provided that solar installations are not considered likely to be compatible with special landscapes and within such proximity to ridgelines. While the photomontages present a case that the visual impacts associated with the solar farm might be considered acceptable, I would not agree having undertaken a site inspection and having considered the wider views. In this regard, and notwithstanding the supportive national and local policies for renewable energy projects, I am not satisfied that the development is acceptable at this location and would, if permitted, represent a significant visual impact in this special landscape, of which it is the stated policy of the Council to protect.

8.4. Impact on Residential Amenity

8.4.1. Visual Impact:

One of the primary concerns associated with the proposed development, relates to impacts on the existing residential amenities of properties in the area. I have discussed the issue of visual impact above, and overall, I am not satisfied, given the elevated nature of the site and the wide reaching views towards the site from adjacent scenic routes, that the proposed development is acceptable in terms of visual impact. Having regard to the proximity of a number of residential properties to the subject site, I consider that the development, notwithstanding the proposed retention of existing hedgerows and the planting of additional hedgerows, would have a significant adverse impact on existing residential amenities.

8.4.2. Noise:

It is submitted that the proposed construction phase of the development will take approximately five to six months, and the working hours will be 8am to 7pm Monday to Saturday, with working on Sundays or Bank Holidays conducted only in exceptional circumstances. A workforce of up to 18 people will be employed during the construction phase increasing to 36 during peak periods and the Construction Management Plan provides details of the traffic volumes that will be generated during the construction period. It is likely that the construction phase of the development will have an impact, albeit a temporary impact on existing residential amenity. However, I am satisfied that the noise levels generated during the construction phase can be considered acceptable, subject to the inclusion of a condition in any grant of planning permission to limit the working hours and compliance with the recommended EPA noise emission limits.

In terms of operational noise, the Board will note that the nature of the development would indicate that there is no significant operating noise. The primary noise sources would be from the cooling fans associated with the inverter boxes and transformers in the control cabins. Overall, I would consider that operational noise from the proposed development is not a significant issue in terms of residential amenity.

8.4.3. Glint & Glare:

The issue of glint and glare arises in certain conditions when the sun is low and light can be reflected from the solar panels to ground based receptors, and can cause nuisance as well as having an impact on established amenities in the local area. In support of the proposed development, the applicant submitted a Solar Photovoltaic Glint & Glare Study¹. It is submitted that glint and glare will generally occur in the morning and evenings, and when the sun is shining. The study area for the subject appeal is 1km and it is noted that the proposed PV panels, the subject of this appeal, will be fixed in one orientation, facing due south, and will not track the sun.

As such the primary issue for assessment and consideration is whether glint from the proposed development would have any adverse impact on local amenities. The submitted Glint & Glare Study identified 45 residential receptors within the study area

¹ I note that there are gaps in the information presented in this study. However, the information presented is clear and relates to the proposed development.

and 96 road receptors. The assessment concludes that none of the houses within the study area have the potential to experience glare, and 34 of the road receptors having a theoretical potential to experience glare. The Study concludes that although unnecessary from a glint and glare point of view, there are soft landscaping measures proposed which will surround the perimeter of the proposed site which will provide further screening of the site from the surrounding houses and roads.

Having regard to the open and elevated nature of the proposed development site, a condition should be included in any grant of planning permission that the mitigation planting, occurs in the first planting season following a grant of planning permission, should the Board be so minded to grant permission for the proposed development.

8.4.4. Other Residential Amenity Issues:

There is potential for impacts on the established residential amenity of the area during the construction phase of the development, but it must be acknowledged that this period will be short and temporary in nature. It is noted that once operational, there will be no permanent personnel located on site and the site will be visited by maintenance personnel occasionally. It is the applicants intention to use CCTV to monitor the site following the completion of the development works. The use of CCTV cameras is a common and important feature of solar PV farms and they are used in the interest of crime prevention. I refer the Board to the UK Guidelines '*Planning Guidance for the development of large scale mounted solar PV systems*' in this regard as they include a consultation with the police service who recommend a CCTV system as a defence mechanism. The CCTV system would be a deterrent to crime in the general area and would not, in my opinion, interfere with privacy of residents or impact on residential amenity. Other than the potential visual impacts associated with the proposed development, I am satisfied that subject to compliance with appropriate conditions, the proposed development will be acceptable in terms of impact on residential amenity.

8.5. Other Issues:

8.5.1. Traffic and Access

A Traffic and Transport Statement has been submitted by the applicant in support of the proposed development, which provides full details of the access to the site as well as the likely traffic arising from the construction phase of the development. The proposed haul routes will use the existing local road network and the existing track through the golf course will be widened to accommodate the construction traffic for the solar farm. It is estimated that the construction phase of the development will give rise to 15HGV trips per day – a total of 1,613 trips over the duration of the installation works estimated between 5-6 months. With regard to workers, it is estimated that there will be 18 people employed rising to 36 during peak periods giving rise to an increase of LGV traffic of 24 trips per day. Once completed, the operational traffic is anticipated at less than 1 visit per week.

Having considered all of the information presented, I conclude that the construction traffic, over a limited period of time, would not result in a significant level of traffic generation and would not cause significant disruption on the local road network. I would accept, based on the information available, that the applicant has adequately demonstrated that the delivery route would be adequate to accommodate the proposed construction traffic. I am satisfied that the traffic generated by the proposed development, during both construction and operational phase, would not adversely impact on the established road network.

8.5.2. Cultural Heritage & Archaeology:

John Cronin & Associates prepared an Archaeological Assessment in support of the proposed development. Within the 1km defined study area, eight recorded archaeological sites were identified, with a further four zones of notification around known monuments encroaching. Two identified monuments are located within the footprint of the proposed development, both enclosures. The assessment also notes the potential for unrecorded sub-surface archaeological features and artefacts within the proposed development site, as well as considering the proposed grid connection route.

In terms of mitigation, the development proposes that a buffer zone will be established around the two recorded enclosures within the proposed development

site. This buffer has been incorporated into the proposed site layout. In addition, the Board will note that a programme of pre-development testing is recommended, including a geophysical survey, and that the Department of Culture, Heritage & the Gaeltacht has recommended that conditions be attached in relation to archaeological monitoring. I also note that the County Councils Heritage Officer also considered the content of the report submitted by the applicant. I am satisfied that the issue of archaeology has been adequately dealt with and should the Board be minded to grant planning permission in this instance, the recommendations of the Archaeology Assessment should be included as conditions of permission.

8.5.3. Ecology

Kelleher Ecology Services prepared a Stage 1 Screening Assessment in support of the proposed development as well as a Planning & Environmental Report which included a section on Ecology. The reports sought to deal with, and address the potential ecological impacts arising from the proposed development. The applicants undertook desk top and field surveys in August 2018 to establish a baseline ecological assessment, and notes that the footprint of the proposed solar farm site is dominated by Improved Agricultural Grassland (GA1) with Hedgerows (WL1) habitats and Conifer Plantation (WD4) adjacent to the hedgerows to the north, north east and western boundaries of the study site. There are no habitats within the study area that conform to those listed under Annex 1 of the EU Habitats Directive.

The surveys carried out found no evidence of rare or protected flora, habitats or fauna within the proposed development site. One red-listed species of high conservation concern, Black-headed Gull *Chroicocephalus ridibundis*, was recorded flying over the site during the site walkover, however, the site does not support habitats of particular interest or value to this species. In addition, 3 amber-listed species were also noted in and around the site. 21 additional bird species were recorded in the 2km square (N71D), which included 2 red-listed species, one of which may forage at the site. Overall, the site is considered to be of low value for birds in general due to its improved / modified character. The habitat of highest value for most bird species is hedgerow and this will not be significantly impacted by the proposed development, with only 4m proposed to be removed to accommodate access. An additional 1,600m of new hedgerow will be planted and the existing hedgerow enhanced.

In terms of terrestrial mammals and bats, the report notes no evidence of mammal activity within the site, noting that the hedgerow boundaries offer suitable foraging, commuting, breeding and resting habitat for a range of small mammal species in general. There are no structures present on the site that could support a permanent roosting opportunity for bats, other than some mature trees and hedgerows along the boundary of the site. In addition, the hedgerows could provide suitable foraging habitat for bats. However, the open fields are considered to be of low suitability for bats, which prefer linear vegetated features for commuting and foraging. The proposed development will not result in the loss or removal of mature trees or other suitable bat roosting habitats / structures and therefore, no impacts are expected. While a 4m section of hedgerow will be removed to accommodate the proposed development, an additional hedgerow will be planted with a net increase of c1,600m provided across the site. I am satisfied that the development not significantly impact upon the mammals and bats using the site.

The proposed grid connection to the existing Kildare 38kV substation at Southgreen will be agreed with ESB Network and will run primarily within Improved Grassland and artificial surfaces. The details of the proposed perimeter fence in terms of access for mammals is a little unclear in that a couple of options are proposed. It is proposed that either mammal access points will be incorporated every 100m or a minimum gap of 200mm will maintained between the bottom of the fence and the ground throughout. The access points are proposed to be 250mm high x 220mm wide. I am satisfied that the applicant has sought to protect the ability of animals to commute between the site and adjoining land.

Overall, I consider that the ecological impact of the development as proposed is acceptable and that given the nature of built structures proposed, it would not significantly alter the characteristics of the site. The Board will also note that the site will be reinstated quite easily following the decommissioning of the solar PV farm. The site is located where there is extensive areas of similar habitats in the vicinity of the site which could accommodate any potentially, although unlikely, displaced species. I would also consider that the proposal would have no significant or adverse impact on existing aquatic habitats in the area due to the lack of a significant connection between the site and the proposed works to such habitats in the vicinity.

8.5.4. Surface Water Drainage

The Board will note that third parties who submitted objections to the Planning Authority, raised concerns in terms of the potential for surface water flooding issues with water flowing off Dunmurry Hill. There are no drainage ditches identified within the boundaries of the proposed development site and surface water drainage flows with the topography of the site. The underlying aquifer is identified as being a Poor Aquifer and the groundwater vulnerability is identified as being extreme.

In terms of the subject appeal, it is submitted that the proposed development will not alter the existing drainage regime and the existing site levels will generally not be modified in the developing of the site. In terms of the construction phase of the development, temporary silting ponds will be constructed to ensure that no silt-laden runoff drains directly to ground. I note that there are no historical flood events identified in the area. Subject to good site management practices, I am satisfied that the potential for serious pollution or contamination of ground waters is minimal.

The subject site is not bound by any water courses and that there are no water courses traversing or affecting the subject site. In addition, there is no hydrological connections from the site to the proximate rivers which are components of Natura 2000 sites. The proposed development will result in very little interference with the existing drainage systems of the site. While I accept that the proposed development will result in additional hard surface, including the provision of tracks and the temporary site compound, the nature of the panels, which are raised off the ground, will not generate any significant additional surface waters. I am satisfied that the development is acceptable in terms of surface water drainage, subject to compliance with an appropriate condition to be included in any grant of permission.

8.6. AA Screening

- 8.6.1. The obligation to undertake appropriate assessment derives from Article 6(3) and 6(4) of the Habitats Directive. Essentially it involves a case by case examination for Natura 2000 site and its conservation objectives. Appropriate Assessment involves consideration of whether the plan or project alone or in combination with other projects or plans will adversely affect the integrity of a European site in view of the site's conservation objectives and includes consideration of any mitigation measures

to avoid reduce or offset negative effects. This determination must be carried out before a decision is made or consent given for the proposed plan or project. Consent can only be given after having determined that the proposed development would not adversely affect the integrity of a European Site in view of its conservation objectives.

8.6.2. While the subject site does not have any conservation designation applying to it, given that a number of Natura 2000 sites are located within 10km of the site, the Board will be required to consider the potential effects of the proposed development on the identified European Site. Arising from the requirements of Articles 6(3) and 6(4) of the Habitats Directive, the Board as the competent authority is required to carry out an appropriate assessment using a 4 stage process where the outcome of each stage determines whether the next further stage is required. The site must be subject to AA regarding its implications for the Natura 2000 site in view of the site's conservation objectives *"if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects"* (EC, 2006). In other words, where doubt exists about the risk of a significant effect, an Appropriate Assessment must be carried out.

8.6.3. Kelleher Ecology Services prepared a Stage 1 Screening Assessment in support of the proposed development. The Assessment identified that the following Natura 2000 sites which could potentially be affected by the proposed development and the associated grid connection route:

- Pollardstown Fen SAC, Site Code 000396
- Mouds Bog SAC, Site Code 002331
- River Barrow and River Nore SAC, Site Code 002162
- Ballynafagh Lake SAC, Site Code 001387
- The Long Derries, Edenderry SAC, Site Code 000925
- Ballynagagh Bog SAC, Site Code 000391

8.6.4. The AA Screening concluded that there are no European sites within the site and that no indirect hydrological impacts on Natura 2000 sites are relevant as a result of the proposed development. It is objectively concluded that no significant effects

arising from the proposed development are likely to occur in relation to the identified Natura 2000 sites. I am satisfied that there will be no direct, indirect or cumulative significant impacts to the European sites arising from the proposed development and in this regard, it is reasonable to conclude that on the basis of the information on file which I consider adequate in order to issue a screening determination, that the proposed development, either individually or in combination with other proposed development, would not be likely to have a significant effect any European Site in view of the sites' conservation objectives and a stage 2 appropriate assessment and submission of an NIS is not warranted.

9.0 Recommendation

- 9.1. It is recommended that planning permission be refused for the proposed development for the following stated reasons:

10.0 Reasons and Considerations

The site of the proposed development is located in the Chair of Kildare, Special Landscape Character Area as indicated in Chapter 14 of the Kildare County Development Plan 2017-2023 which has a low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape having regard to special sensitivity factors. Having regard to the open, exposed and elevated nature of the site, and the scale, nature and design of the proposed development, it is considered that the proposed solar farm would form a prominent and obtrusive feature in the landscape, which would be highly visible in views from its environs and which would adversely impact on the character of the local setting. The proposed development would seriously injure the visual amenities of the area and would conflict with this development plan objective which seeks to protect the landscape. The proposed development would, therefore be contrary to the proper planning and sustainable development of the area.

A. Considine
Planning Inspector
07/05/2019