An Bord Pleanála

Inspector's Report PL17.248146

Development	Construction of solar farm to include two electrical substations, transformer, inverter station and storage modules, solar panels, access roads and associated site works
Location	Garballagh, Thomastown, Gillinstown, Downestown, Duleek, Co. Meath
Planning Authority	Meath County Council
Planning Authority Reg. Ref.	LB/160898
Applicant(s)	Highfield Solar Limited
Type of Application	Permission
Planning Authority Decision	Grant
Type of Appeal	Third Party
Appellants	1. Bernard & Judith Cullen, Mark & Stella Hatch, Michael & Leona Halligan
Observers	None
Date of Site Inspection	13th June 2017
Inspector	Niall Haverty

1.0 Site Location and Description

1.1. The appeal site, which has a stated area of 150.29 hectares, is located in the townlands of Garballagh, Thomastown, Gillinstown and Downestown, to the immediate west of Duleek, Co. Meath. The site is split into two parts, to the north east and south west of the Downestown Road. Both sites are irregularly shaped, and the south western site has an area of 131.37 ha, while the north eastern site is significantly smaller, with an area of 18.92 ha. In the interests of clarity, I will refer to the larger site as the Garballagh site, and the smaller site as the Downestown site.

1.2. The Garballagh site is divided over 19 fields defined by hedgerows and trees and is bisected by a stream that runs from west to east across the site and which is a tributary of the River Nanny. The site is bounded to the north by the railway line that connects Tara Mines and Navan to the Drogheda railway line, to the west by Thomastown Bog pNHA and agricultural lands to the south and east. The R150 Regional Road runs to the south of the site, in an east-west direction, with the southern boundary of the site set-back by between 135m and 300m from the road. There is a single house immediately to the west of the site (Thomastown House), with additional housing to the south and east. The highest point of the site is c. 55m AOD at the south west, reducing to c. 40m to the east. Several electricity power lines of varying voltages and a gas main also run through the site.

1.3. The Downestown site consists of a single large field, generally enclosed by hedgerows and accessed from the Downestown Road through an adjoining field. As with the Garballagh site, the site is bounded to the north by the railway line, while the gas main runs immediately adjacent to the railway line. The stream which runs through the Garballagh site runs along the southern boundary of the site, as do electrical power lines. The highest point of the site is c. 52m at the north west corner, reducing to c. 33m at the south eastern corner.

1.4. While the surrounding area is generally in agricultural or residential use, with Duleek village to the east, I note that a quarry is located immediately to the north of the Downestown site, on the other side of the railway line. Other land uses in the wider area include the Indaver waste-to-energy plant, c. 3.5km to the east of the Downestown site, and the Irish Cement plant, c. 4.5km to the north east.

2.0 **Proposed Development**

2.1. The proposed development consists of a solar photovoltaic energy development with a total site area of 150.29 ha, including:

- Solar PV panels ground-mounted on support structures.
- Two electrical substation buildings and associated compounds.
- 69 electrical transformer and inverter station modules (max. 9.2m x 3.2m x 3.45m high).
- Access roads and internal access tracks.
- Spare parts storage container.
- Fencing, electrical cabling, ducting and undergrounding of existing electrical cabling.
- Landscaping and habitat enhancement.

2.2. Planning permission is sought for a period of 10 years and it is stated that the development would have an operational lifespan of 35 years. The Planning Report submitted with the application indicates that the maximum export capacity of the proposed development will be between 60MW and 75MW, depending on detailed design and sourcing of panels.

2.3. The proposed solar panels will be mounted on angled racks, with the upper edge of the panels at a maximum height of 3.2m and the lower edge at a minimum height of 0.7m above ground level. The racks will be pile driven into the ground, without the need for foundations. The array will be orientated to the south, with a minimum separation of 1.5m between each row of racks. The applicant indicates that the racks will have either single or double posts and that the panels may be mounted in either landscape or portrait format.

2.4. As there was no confirmation on the grid connection methodology at the time of lodgement of the application, the documentation included two option for the grid connection, entailing either a 110kV substation in the Garballagh site, connecting to the 110kV network, or a smaller 38kV substation on either site connecting to the 38kV network.

2.5. The proposed construction and operational access to the Garballagh site is from the existing farm entrance adjacent to Garballagh House via the R150, while the proposed access to the Downestown site is via a new entrance on the Downestown Road.

2.6. The planning application was accompanied by numerous reports, including an Environmental Report which addressed ecology, cultural heritage, landscape and visual impact, and glint and glare; a Biodiversity Management Plan, a Flood Risk Assessment, a Construction Traffic Management Plan, a Planning Report and a Statement of Community Consultation. This was supplemented by further information submitted to the Planning Authority, which included an Archaeological report, Architectural Heritage Assessment, and a report addressing the Hydrology of Thomastown Bog pNHA.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. The Planning Authority issued a decision to grant permission subject to 10 conditions, of which the following are of note:

- C2: Archaeological assessment required.
- C3: All environmental, hydrological, traffic and construction mitigation measures to be implemented.
- C4: Remove all structures and reinstate site not later than 25 years from the date of commencement of the development. Restoration plan to be submitted.
- C5: No external lighting.
- C6: Solar panels to be fixed with driven pile or screw pile only.
- C8: Each fencing panel to have minimum 300mm length with bottom edge 150mm from ground level to allow wildlife access.

3.2. Planning Authority Reports

3.2.1. The Planning Officer's report can be summarised as follows:

- Proposed development does not require EIA, and is unlikely to have significant adverse effects on the environment.
- Proposed development is supported by national, regional and local planning policy. There is a general presumption in favour of solar energy expressed in government guidelines.
- Siting of scheme is within a landscape character area that can absorb such a development.
- Traffic assessment fails to include detail on traffic generated by importation of material for access roads, or source of this material.
- Road network has capacity and capability to accommodate traffic volumes to be generated.
- Planning Authority is satisfied that none of the protected views could possibly be impacted upon.
- Glint and glare will be eliminated by mitigation measures in the form of a woodland barrier.
- Inverters are appropriately sited to ensure no negative noise impacts and will be silent during the night.
- Risk to water quality and hydrology arises during construction phase.
- Planning Authority is satisfied with the development from a flood risk perspective subject to maintenance of the drainage system.
- 3m buffer between fence and panels provides ideal opportunity for establishing habitats.
- No Stage 2 AA required, due to scale of proposed development, distance from Natura 2000 sites and lack of pathways to sensitive receptors.
- Absence of specific grid connection proposals is consistent with established practice for solar farms in the UK and the recent ABP decision in Co. Wexford.
- Archaeological assessment can be addressed with pre-development condition.

- Concerns regarding impact on Thomastown pNHA have been addressed.

3.3. Other Technical Reports

3.3.1. Conservation officer

- Proposed development is in vicinity of Downestown House, Garballagh House and Thomastown House, which are not protected structures or included in the NIAH survey, but which are shown on 1st or 2nd edition OS mapping. Architectural Heritage Assessments required for these structures.
- Following submission of further information, the Conservation Officer stated that she had no further comment.

3.4. Prescribed Bodies

3.4.1. Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs (DAHRRGA)

- Site is located in an area of high archaeological potential and no geophysical or physical assessment has taken place.
- Archaeological Impact Assessment should be prepared, and a final decision should not be made until DAHRRGA and Planning Authority have had opportunity to review the AIA.
- A further email dated 2nd February 2017 from DAHRRGA to the applicant is on file, stating that the intention of DAHRRGA was that archaeological assessment could be addressed by way of Condition.

3.4.2. An Taisce

- Strategic national and regional strategy is required for solar development.
- Optimum location suitability required to protect biodiversity, landscape sensitive areas and good tillage.
- Planning Authority should ensure site is suitable and assess flood risk impacts.

3.4.3. Office of Public Works

- OPW drainage channels require 10m maintenance strips along the edges of channels measured from the top bank edge. This requirement should be applied for all drainage channels.
- New culverts, bridges or changes to existing structures on watercourses will require section 50 consent from the OPW.

3.4.4. **Inland Fisheries Ireland**

- Site is within River Nanny catchment. This is currently at poor status, and should have been restored to good by end of 2015.
- Minimal reference to fisheries habitats and protection of same, except in Thomastown hydrology report submitted as further information.
- IFI concern is with regard to construction phase and potential in-stream works associated with cabling.
- All in-stream works should take place between July and September and works should comply with IFI Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters 2016.

3.5. **Third Party Observations**

3.5.1. 16 third party observations were received. The issues raised were generally as per the appeal, as well as the following:

- Conflict with agricultural zoning.
- Noise impacts.
- Efficiency of solar energy in Ireland.
- Lack of EIA.
- Depreciation of property values.
- Impact on cultural heritage and tourism.
- Undesirable precedent for further industrial development in the area.
- Lack of community gain. Jobs related to development must be offset against loss of farming jobs.

- Health and safety impacts due to proximity of substations and high voltage cables to housing.
- Length of permission sought is excessive, with risk that re-instatement of land would not occur upon cessation.

4.0 Planning History

4.1. Appeal site

4.1.1. There is no previous planning history on the appeal site.

4.2. Surrounding Area

4.2.1. **SA/901916:** Permission granted for medical/retirement complex, comprising nursing home, primary care and day care centre and associated assisted living units. Subsequently extended under LB/150550 until July 2020. This site is located on the zoned lands immediately to the south east of the Downestown site.

4.3. Other Similar Developments

4.3.1. The Board has considered appeals in respect of a considerable number of ground-based solar PV developments in recent years. Those which are considered of relevance to this appeal are larger in scale and include:

- **PL26.247217:** Permission refused for a solar PV energy development within a total site area of up to c.90 ha in County Wexford (2nd February 2017).
- **PL26.247366:** Split Decision for the development of a solar PV array on c. 31.28 hectares separated into two distinct plots located at Bridgetown, County Wexford with an estimated power output of 17 MW. The northern array (11.7 ha) was granted permission and the southern array (19.5 ha) was refused (23rd March 2017).
- **PL17.248028:** Proposed solar farm on a 43 ha site near Julianstown, Co. Meath, which is currently on appeal to the Board.

5.0 Policy Context

5.1. EU Directive 2009/28/EC - Energy from Renewable Resources

5.1.1. EU Directive 2009/28/EC sets a target of 20% of EU energy consumption from renewable sources and a 20% cut in greenhouse gas emissions by 2020. As part of this Directive, Ireland's legally binding target is 16% energy consumption from renewable sources by 2020. Ireland has set a non-legally binding target of 40% of renewable energy share for electricity by 2020 (from a 2012 position of 19.6%).

5.2. National Spatial Strategy for Ireland, 2002-2020 (NSS)

5.2.1. Section 2.6, entitled 'How to Strengthen Areas and Places' states that national and international evidence also demonstrates that rural areas have a vital contribution to make to the achievement of balanced regional development. This involves utilising and developing the economic resources of these rural areas, particularly in agriculture and food, marine, tourism, forestry, renewable energy, enterprise and local services.

5.3. National Planning Framework (NPF)

5.3.1. A new National Planning Framework is currently being developed to replace the National Spatial Strategy. The NPF is currently at pre-draft stage.

5.4. Ireland's Transition to a low carbon Energy Future 2015-2030

5.4.1. This White paper on Energy policy published by the Department of Communications, Energy and Natural Resources in December 2015 sets out a vision to reduce greenhouse gas (GHG) emissions by between 80% and 95% compared to 1990 levels, by 2050, falling to zero or below by 2100. It states that as new energy solutions such as bioenergy, solar photovoltaic (PV) and offshore energy mature and become more cost effective they will be included in the renewable energy mix. The policy document recognises that solar photovoltaic (PV) technology is rapidly becoming cost competitive for electricity generation and that the deployment of solar power in Ireland has the potential to increase energy security, contribute to our renewable energy targets and support economic growth and jobs.

5.5. **National Renewable Energy Action Plan (NREAP) submitted to the EC in 2010.**

5.5.1. The NREAP was submitted to the European commission in 2010. It sets out Ireland's approach to achieving its legally binding targets, with a target of 40% of electricity consumption to be from renewable sources by 2020.

5.5.2. A third progress report on the NREAP was submitted to the European commission in April 2016 which detailed installed capacity of solar power to be 1.38 MW.

5.6. **Food Wise 2025 (Department of Agriculture, Food and the Marine, 2015)**

5.6.1. This document sets out a 10-year vision for the Irish agri-food industry up to 2025. Subject to following actions identified in the strategy, the sector projections are:

- Increasing value of agri-food exports by 85%, Increasing value added in the agri-food, fisheries and wood products sector by 70%, Increasing the value of Primary Production by 65% and the creation of an additional 23,000 direct jobs in the agri-food sector.

To achieve the projections set out above, Food Wise 2025 identifies c.400 recommendations and actions to achieve sustainable growth.

5.7. **Regional Planning Guidelines for the Greater Dublin Area (GDA) 2010-2022**

5.7.1. Strategic Recommendations:

- **PIR26:** Development Plans and Local Authorities support, through policies and plans, the targets for renewable generation so that renewable energy targets for 2020, and any further targets beyond 2020 which become applicable over the duration of the RPGs, are met.
- **PIR27:** That low carbon sustainable renewable energy systems, bio-energy and energy conservation potentials are exploited to their full potential through the advancement of EU and national policy at regional level and the promotion of existing and emerging green technologies.

5.7.2. Strategic Policy:

- **PIP4**: That the ICT and energy needs of the GDA shall be delivered through the lifespan of the RPGs by way of investment in new projects and corridors

to allow economic and community needs to be met, and to facilitate sustainable development and growth to achieve a strong and successful international GDA Gateway.

5.8. **Meath County Development Plan 2013-2019**

5.8.1. While the appeal site is not zoned, the Downestown site is immediately adjacent to the development boundary for Duleek village and lands zoned G1, to provide for necessary community, social and educational facilities. These lands are the subject of a grant of permission for a medical/retirement complex.

5.8.2. Volume 5 of the Development Plan includes written statements for various settlements, including Duleek. The goal set for Duleek is to consolidate and strengthen the town through the provision of a well-defined and compact town centre area, the promotion of a range of land-uses to support the residential population of the town, to avoid a continuous outward spread in order to promote the efficient use of land and of energy, to minimize unnecessary transport demand and encourage walking and cycling and to enhance the built environment.

5.8.3. Section 2.2 states that Core Principle 8 of the Strategic Planning Approach is to support agriculture and agricultural related development in Meath and strengthen the county as a hub for the vibrant agricultural and food sectors.

5.8.4. Chapter 8, 'Energy and Communications', sets out a number of Energy Policies and objectives, including:

- **EC POL 1:** To facilitate energy infrastructure provision, including the development of renewable energy sources at suitable locations, so as to provide for the further physical and economic development of Meath;
- **EC POL 2:** To support international, national and county initiatives for limiting emissions of greenhouse gases through energy efficiency and the development of renewable energy sources which makes use of the natural resources of the county in an environmentally acceptable manner, where it is consistent with proper planning and sustainable development of the area;
- **EC POL 3:** To encourage the production of energy from renewable sources, such as from biomass, waste material, solar**,** wave, hydro, geothermal and

wind energy, subject to normal proper planning considerations, including in particular, the potential impact on areas of environmental or landscape sensitivity and Natura 2000 sites;

- **EC POL 4:** To support the National Climate Change Strategy and, in general, to facilitate measures which seek to reduce emissions of greenhouse gases;
- **EC OBJ 3:** To investigate the preparation of a renewable energy strategy promoting technologies which are most viable in County Meath.

5.8.5. Section 8.1.3 states that Meath County Council is committed to developing a more diverse range and combination of energy sources including wind energy, micro hydro power, solar energy, biofuels, geothermal (deep and shallow), anaerobic digestion and combined heat and power in order to deliver on the targets set down in the National Renewable Energy Action Plan Ireland.

5.8.6. Section 11.15.1 states that, in the assessment of individual proposals for renewable energy projects, Meath County Council will take the proper planning and sustainable development of the area into account and will consider the environmental and social impacts of the proposed development.

5.8.7. Section 10.8.1, 'Employment in Agriculture', notes that to sustain rural communities, farm diversification and new employment opportunities will be required. Section 4.4.2, 'Biofuels and Renewable Energy', of the Plan also recognises renewable energy generation as a growing sustainable industry that can supplement the development of the rural economy of Meath. This is reflected in the following Policies:

- **ED POL 5:** To recognise the contribution of rural employment to the continued and sustainable growth of the economy and to promote this continued growth by encouraging rural enterprise generally, especially those activities that are resource dependent, including energy production, extractive industry, small scale industry and tourism in a sustainable manner and at appropriate locations.
- **ED POL 16:** To recognise the contribution of rural employment to the overall growth of the economy and to promote this growth by encouraging rural enterprise and diversification generally and to promote certain types of rural

enterprises, especially those activities which are rural resource dependent, including renewable energy production, food production / processing and the extractive industries.

5.8.8. Section 9.8.6 relates to Landscape Capacity, and the following Objective is noted:

- **LC OBJ 1:** To seek to ensure the preservation of the uniqueness of all landscape character types, and to maintain the visual integrity of areas of exceptional value and high sensitivity.

5.8.9. Section 9.10 relates to Views and Prospects, and the following Objective is noted:

- **LC OBJ 5:** To preserve the views and prospects and the amenity of places and features of natural beauty or interest listed in Appendix 12 and shown on Map 9.5.1 from development that would interfere with the character and visual amenity of the landscape.

5.8.10. Appendix 7 includes a Landscape Character Assessment. The appeal site is located within LCA 6, Central Lowlands, which is described as having a high landscape value and moderate landscape sensitivity.

5.9. Solar PV Development Guidelines in the UK

5.9.1. While there are currently no planning guidelines for the development of solar PV in Ireland, guidance is well-developed in the UK and can be considered useful as a reference source for good practice.

5.9.2. **PPG for Renewables and Low Carbon Energy (DCLG 2015)**

This guidance includes advice on planning considerations relating to specific renewable technologies, including solar power. It advises against inflexible buffer zones or separation distances. It includes the following points:

- Encourage use of brownfield land and where agricultural land is used, it should allow for continued agricultural use;
- On greenfield sites, poorer quality land should be used in preference to higher quality land;

- Consider visual impacts and the impacts of glint and glare on the landscape, local residents and aircraft safety and the potential to mitigate these impacts for example through screening with native hedges.

5.9.3. **Planning Practice Guidance for renewable and low carbon energy (BRE National Solar Centre (UK) 2013)**

This UK national guidance provides similar advice to the PPG, but also includes advice on Environmental Impact Assessment in relation to solar farms. It also provides advisory information on planning application considerations.

5.9.4. **Renewable Energy Planning Guidance Note 2 – The Development of large scale (>50 kW solar PV arrays) – Cornwall (UK) 2012**

- Landscape / visual recognised as one of the most significant impacts;
- Provides specific guidance on planning considerations.

5.9.5. **Devon Landscape Policy Group Advice Note No.2 – Accommodating Wind and Solar PV Developments in Devon's Landscape – LUC Environment Planning Design and Management – January 2013**

The guidelines recommend siting solar PV developments on lower slopes or within folds in gentle undulating landscapes or on flat plateau sites rather than upper slopes or coastal headlands, and in landscapes with a sense of enclosure. Appendix 2 lists classification of scale as follows: Very small: < 1ha; Small >1 to 5 ha; Medium > 5 to 10 ha; Large > 10 to 15 ha; very large: over 15 ha.

5.10. **Natural Heritage Designations**

5.10.1. There are two European sites designated under the Habitats Directive located within 10km of the proposed development. These are the River Boyne and River Blackwater SPA (site code 004232) and the River Boyne and River Blackwater cSAC (site code 002299) which are located c. 3km to the north. The River Nanny Estuary and Shore SPA (Site Code 004158) is located c. 11.2km to the east.

5.10.2. There are nine pNHAs and no NHAs recorded within 10km of the site. The closest such sites are Thomastown Bog pNHA, which is located immediately to the west of the Garballagh site, and Duleek Commons pNHA which is located c. 350m to the east of the Downestown site.

6.0 The Appeal

6.1. Grounds of Appeal

6.1.1. A third party appeal was received from David Mulcahy Planning Consultants Ltd. on behalf of Bernard & Judith Cullen, Mark & Stella Hatch and Michael & Leona Halligan, against the Planning Authority's decision to grant permission. The grounds of appeal can be summarised as follows:

- Proposed development will be the largest solar farm in Ireland or the UK. It is 1.5 times larger than a solar farm in Wexford which the Board refused permission for (ABP Ref. PL26.247217) and should be refused permission on the basis that it is premature pending the introduction of national, regional and local planning guidelines.
- Solar farms must be plan-led, as developer-led proposals give rise to piecemeal, haphazard development. There is currently a policy vacuum.
- It is an Objective of the Meath CDP to prepare a Renewable Energy Strategy and proposed development would be premature pending preparation of this strategy.
- Proposed development will result in the loss of agricultural lands that would be even greater than the refused Wexford proposal (ABP Ref. PL26.247217) and is premature pending introduction of planning guidelines.
- Proposed development is located on prime agricultural lands. If guidelines were introduced, they would most likely seek to avoid such lands in favour of more marginal lands.
- Proposed development will have a negative landscape and visual impact, as undulating site will make it difficult to screen the development and the site is located within Landscape Character Area 6 which is of medium sensitivity and high landscape value.
- Proposed development is split into two sites, in manner similar to refused Wexford solar farm. As with that development, the splitting will intensify the impact on the landscape.

- Nature of development is alien to the landscape character, and there are no glasshouses or growing under plastic in the area.
- It is difficult to believe that some of the CGI images portray an accurate representation of the actual visual impact.
- The PFRA maps show that the stream running through both sites floods during the 1 in 100 year event. Photographs of significant flooding in the area are included with the appeal. Duleek Written Statement highlights that Duleek is at significant risk of flooding, is protected by the OPW Duleek Flood Relief Scheme, and that only limited forms of development should take place outside the flood defences.
- Planning Authority only considered the impact of flooding on the development and did not assess the impact of the proposed development on flooding downstream.
- Expert evidence relating to a solar farm appeal in the UK, which was accepted by the Inspector, indicates that run-off from panels will not infiltrate to ground at the same rate as existing, but will form rivulets that increase the amount of water run-off from the site. Increased run-off could give rise to serious flooding in residential areas of Duleek.
- Some panels are located within the flood risk area and have the potential to become obstacles during a flood event, catching debris and increasing the level of flooding.
- No report was received from the Roads Department and there is no detailed assessment of the traffic impact.
- Traffic Review Report, prepared by Transportation Services Ltd. included with appeal. This found that the construction management plan did not examine capacity of existing roads and junctions, deliveries are treated as one-way movements rather than two-way trips, sightlines are inadequate, scale of development warrants a Traffic and Transport Assessment and a Stage 1/2 Road Safety Audit should have been provided.
- Proposed development will have a material impact on the residential amenity of the Hatch and Halligan dwellings due to the change from agricultural use to

industrial use, potential glint and glare impacts and the elevated nature of the site.

6.2. First Party Response

6.2.1. A response to the appeal was received from Bamford and Bonner on behalf of the applicant and can be summarised as follows:

- Delivery of renewable energy projects within Co. Meath is well below national average. It would be consistent with CDP and RPGs to allow solar projects to progress.
- Project will result in avoidance of 25,800 – 35,000 tonnes of CO2 per annum and will assist Ireland in meeting its greenhouse gas reduction targets.
- Project will have a grid connection offer from EirGrid in August 2017 (email from EirGrid enclosed with submission). Connection will be to the 110kV transmission line traversing the site.
- Connection at 110kV level entails high connection costs and requires a development of a certain scale. Minimum installed capacity of 60MW is required to connect to 110kV system on a cost effective basis.
- 10-year permission required to allow for connection to grid, which is outside control of applicant.
- Further spatial strategy or guidance is not required to control solar developments, as there is a limited envelope of land available due to constraints such as availability, capacity and proximity of electricity access points, conservation designations, solar yield etc. Total existing solar planning applications amount to 0.049% of total land available to agriculture.
- Proposed development by virtue of scale, proximity to infrastructure and solar resource is more economically viable than most solar PV developments nationally, and is consistent with Energy White Paper which seeks to promote the supply of competitive and affordable energy.

- There is a distinction between policy and guidelines. There is clear policy support at EU, national, regional and county level for renewable energy and solar energy and a policy vacuum does not occur.
- The Minister for Housing, Planning, Community and Local Government has stated a number of times that applications for solar development can be decided in the context of the proper planning and sustainable development of the area without specific guidelines.
- The Board has previously granted permission for a number of large schemes without the need for Ministerial Guidelines, e.g. Tipperary Venue, Apple Data Centre, Corrib Gas Terminal.
- Having regard to the actual wording of Section 8.1.3 of the CDP, it does not make a commitment to prepare a renewable energy strategy within the lifetime of the Plan.
- Proposed development will support farming enterprises by combining agricultural production with additional revenue from rent. Development will facilitate multi-purpose land-use and allow the site to remain productive, for purposes such as sheep grazing, food crops or bee keeping.
- Proposed development is compatible with Food Wise 2025 targets and will have a not significant impact on land-use at a regional level.
- Proposed development is consistent with recommendations made in SEAI guidance document.
- Designation of landscape as ‘high’ value occurs on a spectrum that also includes ‘very high’ and ‘exceptional’. There is almost no location within Co. Meath adjacent to 110kV infrastructure that combines a lower landscape sensitivity with a lower landscape character designation compared to the appeal site.
- Proposed development will have positive biodiversity impact.
- Proposed development will not result in increased flood risk. Solar panel racks are a water compatible land use and spacing and height of racks will result in minimal risk of obstruction. Any rivulets that form will be at an angle to the overland flow rather than parallel. They would therefore reduce run-off rates.

- Having met the appellants, the applicant proposes additional mitigation and maintenance measures to address the appellants' outstanding concerns with regard to flood risk.
- Trip generation during operation does not justify a Traffic and Transport Assessment as per NRA guidance.
- Applicant acknowledges appellants concerns with regard to construction traffic and will adhere to management protocols.
- No remedial work on third party lands is required to achieve recommended sightlines at each entrance. Once operational, traffic levels will reduce to lower than existing agricultural traffic volumes.
- Appellants' concern with regard to the condition of the existing road at the southern entrance can be addressed with a pre and post-construction survey and remedial works, with a bond if necessary.
- Trip rates were not under-reported as claimed by the appellants. The table in question does include for movements as well as deliveries.
- A Stage 1 Road Safety Audit has been undertaken. All recommendations arising from this have been addressed.
- Proposed development will not have a significant impact on Longford House. Nearest solar panel will be 250m away, and applicant notes that the Board has previously deemed 22m and 100m to be sufficient set back distances in other cases.
- Glint and glare report submitted with application indicates that solar reflections will only be possible for 5 minutes per day. Distance and vegetative screening will significantly reduce any potential for impact.
- Applicant is committed to limiting any perceived impact on householders, and will commence landscaping one growing season in advance of panel installation and proposes to install earth banks along field boundaries, on which vegetation can be planted, to raise the level of screening. The applicant also proposes increasing the landscaping budget to include for semi-mature hedgerows.

6.2.2. The response submission was accompanied by 23 appendices in support of the points set out above.

6.3. Observations

6.3.1. None

6.4. Planning Authority Responses

6.4.1. Response to Appeal

6.4.2. The Planning Authority is satisfied that all matters outlined in the appeal were considered in the course of its assessment.

6.4.3. Response to Applicant's Response to Appeal

6.4.4. Nothing further to add.

6.5. Third Party Response to First Party Response

6.5.1. The third party response to the applicant's response to the appeal can be summarised as follows:

- Low take-up of renewable energy in Co. Meath is not relevant, as targets are on a country-wide basis.
- Proposed development includes 110kV electric plant and therefore comes within provisions of section 182A of PDA and comprises strategic infrastructure development.
- Spatial framework is required to provide a plan-led approach to solar development, rather than developer-led approach. Application is premature pending such a plan.
- Examples of other large-scale projects are irrelevant.
- Impact on agricultural lands is not in keeping with Core Principle 8 of the CDP which seeks to support agriculture.
- Development should be located on more marginal lands elsewhere.

- Targets in Food Harvest 2020 still stand. Development will undermine targets for agricultural expansion.
- Proposed red clover would not survive sheep grazing.
- Study submitted by applicant regarding the effect of solar farms on biodiversity is statistically flawed and should be disregarded.
- Site is upstream of Duleek flood defences and results in flood risk to appellants houses which are also upstream of defences.
- No details of proposed enlarged swales have been provided.
- Flood risk assessment underestimates the risk. No site specific soils investigation was undertaken and there was no consideration of degradation of soil conditions arising from the development.
- Proposed development will reduce in increased run-off.
- Traffic generation is underestimated, when compared to another solar farm development in the UK.
- Applicant has not demonstrated that a reduction in sightlines for an 80kph speed is justified. Development would give rise to a traffic hazard.
- Views from Longford House will be affected by proposed development. Screening planting is deciduous and visual impact will be material in autumn and winter.
- Glint and glare will have a material impact on Longford House. Unclear how estimated figure of 5 minutes per day was calculated.
- Setbacks off gas interconnector are not referenced. Roadstone quarry has a pipe running through Downestown site to the Paramadden river, which is not referenced in application.
- Proposed development has potential to have a serious impact on Duleek Commons pNHA.

6.5.2. The response submission was accompanied by a traffic response, engineering report and a land-use report.

7.0 **Assessment**

7.1. I consider that the key issues in determining the appeals are as follows:

- Principle and planning policy.
- Use of Agricultural Land.
- Roads and traffic.
- Landscape and visual impact.
- Residential amenity.
- Cultural heritage.
- Surface Water Drainage and Flood risk.
- Ecology.
- Requirement for Environmental Impact Assessment.
- Other issues.
- Appropriate Assessment.

7.2. **Principle and Planning Policy**

7.2.1. Renewable energy projects are supported ‘in principle’ at national, regional and local policy levels, with the imperative at all policy levels being the need to reduce greenhouse gas emissions, reduce reliance on fossil fuels and combat climate change.

7.2.2. EU Directive 2009/28/EC sets a target of 20% of EU energy consumption from renewable sources and a 20% cut in greenhouse gas emissions by 2020. As part of this Directive, Ireland’s legally binding target is 16% energy consumption from renewable sources by 2020. The more ambitious national objective, as expressed in the NREAP, is for 40% of electricity consumption to be from renewable sources by 2020. The White Paper entitled ‘Ireland’s Transition to a low carbon Energy Future 2015-2030’ sets out a vision to reduce greenhouse gas emissions by between 80% and 95% compared to 1990 levels by 2050, and notes that solar photovoltaic technology is rapidly becoming cost competitive for electricity generation and that the

deployment of solar power in Ireland has the potential to increase energy security, contribute to our renewable energy targets and support economic growth and jobs.

7.2.3. At a local level, the Meath County Development Plan 2013-2019 contains a number of Policies to support reductions in greenhouse gas emissions and to facilitate and encourage renewable energy projects, subject to normal planning criteria. Policies EC POL 1, EC POL 2 and EC POL 3 are of particular relevance in this regard.

7.2.4. The appellants contend that there is currently a policy vacuum with respect to solar farms and that the proposed development is premature pending the preparation of guidelines at national, regional and local level to ensure that plan-led development occurs. The appellants refer to a recent Board decision in case PL26.247217, where the Board refused permission for a solar PV project in Wexford on a similar basis.

7.2.5. The applicant contends that there is little evidence pointing to the timely delivery of any such guidelines, and has submitted copies of statements that the Minister for Housing, Planning, Community and Local Government has made on this issue, where he stated that while there are no specific guidelines in place, he was satisfied that the planning code is sufficiently robust to facilitate the assessment of individual planning applications for solar farm developments and that the matter will be kept under review.

7.2.6. The applicant notes that the Board has decided upon a number of major projects without the need for Ministerial Guidelines, and while there may be a degree of merit to this argument, the spatial distribution and number of solar farm applications in recent years are such that the issue of guidance must be considered a relevant planning consideration, as noted by the Minister in his reference to keeping the matter under review. Notwithstanding this, at the present time there is no evidence that Ministerial Guidelines under section 28 of the PDA are under preparation or will be forthcoming in the foreseeable future, and I do not consider that the lack of such Guidelines is a reason for refusal in this instance.

7.2.7. With regard to local planning policy, and particularly Objective EC OBJ 3, the applicant argues that the Objective merely seeks to investigate the preparation of a renewable energy strategy, and that it is not an Objective to prepare such a strategy within the lifetime of the CDP. In the interests of clarity, the text of Objective EC OBJ3 is as follows:

"To investigate the preparation of a renewable energy strategy promoting technologies which are most viable in County Meath."

7.2.8. I concur with the applicant that the Objective is non-specific in terms of both the delivery of a strategy, and the timeline for any such strategy. This is in contrast to the Wexford case referred to by the appellant (ABP Ref. PL26.247217), where the Wexford CDP contains an Objective to prepare a renewable energy strategy for the County during the lifetime of the Plan. The Development Management Guidelines for Planning Authorities 2007 state at Section 7.16.1 that prematurity should only be used as a reason for refusal if there is a realistic prospect of the strategy or plan being completed within a specific stated time frame. Since Objective EC OBJ3 of the Meath CDP only states that it is an objective of the Planning Authority to investigate the preparation of the strategy (rather than to prepare the strategy), and since no time frame is specified, I therefore do not consider that the issue of prematurity arises in this instance.

7.2.9. In conclusion, I am satisfied that there is substantial policy support at national, regional and local level for renewable energy projects, including solar energy projects, and that the lack of Ministerial Guidelines or a renewable energy strategy for County Meath is not a reason for refusing permission in this instance. The proposed development will make a significant contribution to Ireland's targets for electricity generation from renewable sources and for reductions in greenhouse gas emissions and I therefore consider the proposed development to be acceptable in principle, subject to consideration of the key planning issues outlined in Section 7.1 above.

7.3. Use of Agricultural Land

7.3.1. The appeal site comprises agricultural lands that are currently used for tillage and grazing. In the absence of national guidance in Ireland around site suitability and locations for solar farms, I have noted UK guidance which is well developed on this issue. Generally, the UK guidance seeks to direct large-scale solar power developments to previously developed land and industrial land in the first instance, and then to more marginal agricultural lands, rather than highly productive lands. The appellants contend that this approach should be followed in this instance, and argue that the appeal site comprises good quality agricultural lands which should be

kept in agricultural use, and that there are more marginal lands elsewhere which would be more suitable for the proposed development.

7.3.2. I note that the UK, unlike Ireland, has a grading system for agricultural land, ranging from Grade 1 (most productive) to Grade 5 (most marginal). Since Ireland does not have such a grading system, there is no guidance or policy which would preclude the development of solar farms on agricultural land that are currently being used for tillage and grazing. Perhaps the most relevant existing strategy in this regard is the Government's agricultural strategic vision set out in Food Wise 2025, which seeks to increase the value of agri-food, fisheries and wood production sector by 70% and the value of food exports by 85%. I note that these are high level national targets and there is no evidence to suggest that the development of this solar farm on c. 150 hectares in County Meath would compromise the value of agri-food or the value of food exports at a national level. I also note in this regard that, should the development proceed, the appeal site can continue to be utilised for other agricultural practices such as sheep grazing, which is an area where Food Wise 2025 envisages further growth opportunities. The strategy includes a recommendation to develop on-farm diversification, which I consider would be consistent with a dual-use of the lands for energy generation and agriculture. I note that of the many recommendations and actions contained within Food Wise 2025, there are none which include reference to restrictions on land use.

7.3.3. The applicant notes that the energy intensity of solar farms is an order of magnitude greater than farming the equivalent area for biofuels, such as miscanthus or willow and that this is consistent with Food Wise 2025, which supports the development of technologies and processes that make more efficient use of limited resources. I concur with this position, and consider that the dual-use of the lands will assist in meeting renewable energy targets without contravening agri-food policy as set out in Food Wise 2025.

7.3.4. With regard to County level agricultural policies, I consider that the solar farm would support economic growth in the rural area through farm diversification which is supported in the Meath County Development Plan 2013-2019, particularly with respect to Policies ED POL 5 (encourage rural enterprise including energy production) and ED POL 19 (promote rural enterprise including renewable production). The temporary duration and general reversibility of the development is

also noted. While the loss, or partial loss, of agricultural land would occur for a long-term period of 30 years, it would not be a permanent loss.

7.3.5. In conclusion, I consider that the benefits of the scheme, which would make a significant contribution to national renewable energy provision, and which would allow for the dual-use of the lands for agricultural purposes is acceptable in principle on the appeal site and does not materially conflict with Food Wise 2025.

7.4. Roads and Traffic

7.4.1. The main traffic-related concerns raised by the appellant in this appeal centre on construction traffic, including the capacity of local roads and junctions, adequacy of sightlines/visibility splays, lack of a Traffic and Transport Assessment and Road Safety Audit, and queries regarding the predicted traffic volumes.

7.4.2. With regard to the requirement for a TTA, I note that the traffic generated during the operational phase will be low, due to the nature of the development, and will primarily consist of light vehicles. While a significant amount of traffic will be generated during the construction phase, this is indicated as lasting for 44 weeks, and I do not consider it to be so significant in terms of timeframe or traffic volumes as to warrant a full TTA. In this regard I note that a Construction Traffic Management Plan was submitted with the application.

7.4.3. The proposed delivery route would be northerly via the M2 and N2, before exiting onto the R150 Regional Road. The Garballagh site will be accessed from a short local road to the north of the R150, via an existing farm entrance. The Downestown site will be accessed from a new access point on the Downestown Road, which branches in a northwest direction off the R150 on the western outskirts of Duleek village.

7.4.4. With regard to construction traffic generation, I would tend to agree with the appellant that the manner in which the traffic generation calculations are presented is confusing, with the terms ‘deliveries’ and ‘movements’ used interchangeably in the text of the CTMP. The tables at the rear of the CTMP indicates that the proposed development will give rise to a total of 4,910 HGV movements over the 44 week construction period across the two sites. Peak HGV movements at the Garballagh site will occur in weeks 20 to 23 with 17 deliveries per day (i.e. 34 movements), while

the peak movements at the Downestown site will occur in weeks 12 to 13 with 5 deliveries per day (i.e. 10 movements). Car/van movements are indicated as being constant over the construction period and in the level of 50-60 movements per day. The appellant contends that these traffic movements are an underestimation of the actual construction traffic generation, by comparison with a similar scheme in Scotland.

7.4.5. The CTMP includes various mitigation measures for construction traffic management, including signage, road cleaning, dust suppression etc. Notwithstanding the appellant's doubts regarding the actual construction traffic movements, I consider that the proposed development will not give rise to a significant degree of traffic congestion during the 44-week construction phase, and that construction traffic will not give rise to a traffic hazard subject to compliance with a construction management traffic plan and appropriate mitigation measures. I note in this regard that the Roads Department of the Planning Authority did not comment on the application, and I recommend that if the Board is minded to grant permission, that a condition be included requiring a construction traffic management plan to be submitted to the Planning Authority for agreement prior to commencement.

7.4.6. With regard to visibility splays, the drawings submitted with the application were based on OS mapping, and the applicant in their response to the appeal have submitted supplemental drawings, based on a site survey. These drawings indicate a 2.4m x 90m visibility splay at the proposed new entrance on the Downestown Road in both directions. The appellants have noted that these sightlines are not compliant with TII requirements for a road with a speed limit of 80km/hr and that in the absence of a traffic speed survey demonstrating a lower design speed, the required visibility splays are 2.4m x 160m. Having reviewed the relevant TII design standard (DN-GEO-03060, April 2017), I concur with the appellant on this matter. There is a considerable amount of ribbon development along Downestown Road, and having regard to the unlined nature of the road, its winding nature in the vicinity of the proposed entrance and the absence of a traffic speed survey, I am not satisfied that the proposed visibility splays are adequate. While this deficiency could be actively managed during the construction phase in accordance with an agreed construction traffic management plan, I consider that the proposed new access point onto the Downestown Road would constitute a traffic hazard during the operational phase,

notwithstanding the low level of operational traffic generated. I therefore recommend that permission be refused for the Downestown site on the basis of traffic hazard.

7.4.7. At the Garballagh site, a 2.4m x 160m sightline can be achieved in both directions at the junction of the local road and R150 without encroaching on third party lands, albeit that this requires making use of the relaxation where there is a constraint on overtaking (i.e. a solid white line), which allows the visibility splay to the east to be taken to the road centreline rather than the road edge. At the entrance to the Garballagh site from the local road, a sightline of 2.0m x 70m to the north, and 2.0m x 55m to the south (distance to junction with R150) is indicated, which will require the removal of vegetation and a portion of wall at the entrance to Garballagh House, on lands within the applicant's control. Having regard to the fact that this is an existing farm entrance onto a laneway that only serves a small number of houses and that the works will improve the existing visibility splays, I consider these visibility splays to be adequate. However, during the construction phase, when there will be a considerable number of HGVs seeking to access the sites, I consider that compliance with an agreed construction management plan will be necessary to ensure that a traffic hazard is not created.

7.4.8. With regard to operational traffic, this is stated as being limited to 5 – 10 light goods vehicles per year (i.e. 10 – 20 movements), with additional visits to attend to remedial issues as required. I note that the CTMP does not address additional traffic associated with ongoing agricultural use of the lands (e.g. sheep farming) in addition to the solar PV development which is referred to elsewhere in the application documentation. Notwithstanding this, the lands are currently in agricultural use, and I do not envisage any significant traffic issues during operation, other than the issue with the Downestown site access outlined above. Traffic during the decommissioning phase would be marginally higher than during construction, but would be short term and, in my opinion, would not give rise to any additional traffic hazard or risks beyond those that arise during construction.

7.4.9. In conclusion, I am satisfied that the effects of construction traffic on the operation of the road network would be acceptable due to the relatively short-term duration of the construction works, and subject to compliance with a construction management plan which has been agreed with the Planning Authority. However, I consider that the proposed new site entrance to the Downestown site would endanger public safety by

reason of traffic hazard due to the restricted sightlines in both directions, and I recommend that planning permission be refused for this part of the proposed development. With regard to the Garballagh site, I am satisfied that the traffic which would likely be generated during construction, operation and decommissioning phases would not constitute a traffic hazard, due to the improvements to the existing farm entrance on a laneway that serves a small number of houses and I recommend that this part of the proposed development should not be refused for traffic reasons.

7.5. **Landscape and Visual Impact**

7.5.1. The appeal site is located within Landscape Character Area 6 'Central Lowlands' in the Meath County Development Plan. This LCA is described as having a high landscape value and moderate landscape sensitivity. The LCA is described as follows:

> "A large lowland area, across a rolling drumlin landscape with large estates and associated parkland. Thick wooded hedgerows separate medium to large fields. Views are generally limited by the complex topography and mature vegetation except at the tops of drumlins where panoramic views are available particularly of the Hill of Tara uplands and Skryne Church."

7.5.2. The Landscape Character Assessment notes that this LCA has medium potential capacity to accommodate overhead cables, substations and communication masts due to the complexity of the area, which has a variety of land uses and a robust landscape structure. It also has medium potential capacity to accommodate road infrastructure and upgrades to existing roads as the small scale wooded nature of the landscape has the potential to screen such developments and there are few archaeological features present. The LCA is identified as having low potential capacity to accommodate wind farms due to the high number of receptors but medium potential capacity to accommodate single turbines because extensive views could be more easily limited by vegetation and through careful location.

7.5.3. Having inspected both parts of the appeal site, I consider their character to be generally typical of the Central Lowlands as defined above. The Garballagh site sits within a mildly undulating landscape, and is comprised of a series of small to medium size fields defined by boundaries of dense hedgerows and trees. Views to,

from and within the site are generally limited as a result of this topography and vegetation. The Downestown site is more elevated, and comprises a single large field, which is not as well enclosed by hedgerows, with clear views of the site from Longford Road and from zoned undeveloped lands within Duleek.

7.5.4. Duleek is the closest settlement to the appeal site, with the western development boundary of the village immediately to the east of the Downestown site. The R150 regional road runs to the south of the Garballagh site, with the appeal site set back from the road by between 135 – 300 metres, while a railway line currently used for freight services only runs along the northern boundaries of both sites. There are a number of individual houses to the south of the Garballagh site and between the two sites, along Downestown Road. In the wider area there are a number of large industrial-type developments, including the Irish Cement plant at Platin, Carranstown waste-to-energy plant and a number of quarries, while the River Boyne and the Brú na Bóinne World Heritage Site are located c. 3.5km to the north.

7.5.5. A Landscape and Visual Impact Assessment and Landscape Strategy Plan was submitted with the application. While the Zone of Theoretical Visibility submitted with the LVIA indicates that the proposed development would be widely visible within the 5km study area, it is a bare ground model that does not take account of the extensive hedgerows and vegetation that limits views in the area, or the heavily planted railway embankment which runs along the northern boundary of both sites and which restricts views towards the site from the north.

7.5.6. Having inspected the site and the surrounding area, I consider that the LVIA generally provides a reasonably thorough assessment of the landscape and visual baseline and that the views selected are characteristic of views available of the appeal site, including protected views in the Development Plan.

7.5.7. With regard to landscape impacts, the proposed development is extensive in scale and would appear to be the largest solar farm development that has come before the Board to date. The installation of uniform parallel arrays of blue/black solar panels over such a large area has the potential to significantly change the landscape character of the area. In addition, the splitting of the development into two discrete areas has the potential to increase the dominance of the development and intensify its impacts across a wider area on the outskirts of Duleek village.

7.5.8. Notwithstanding the scale of the development, I consider that the relatively robust character of the Garballagh site, which is typical of the Central Lowlands LCA, allied with the modest height of the solar panel arrays which form the bulk of the proposed development and the high degree of enclosure provided by the established hedgerows, which are generally to be retained, will serve to mitigate the landscape impact of the development, and that the element of the proposed development located on the Garballagh site will not have a significant adverse effect on landscape or rural character. However, with regard to the Downestown site, it is located immediately to the west of the development boundary of Duleek and is adjacent to and visible from undeveloped zoned lands and in proximity to a number of residential developments. While it is relatively well screened from the Downestown Road, it is more visible from Longford Road due to its elevated site topography, and from residential areas of Duleek due to gaps in hedgerows. I consider that the Downestown site can be described as being at the urban/rural interface and I consider that the proposed development on the Downestown site serves to undermine this urban/rural contrast by adding a large-scale industrial type use immediately adjacent to Duleek. In my opinion this serves to de facto expand the apparent town boundary, is detrimental to the preservation of rural character and is not consistent with Objective SS OBJ 13 of the Development Plan which seeks to ensure that small towns such as Duleek grow in a manner that is balanced, self-sustaining and supports a compact urban form and the integration of land use and transport. The cumulative scale of the arrays on both sites is such that the identified impact on rural character and the amenity and character of Duleek village is significantly exacerbated. I therefore recommend that permission be refused for the array on the Downestown site in the interests of protecting both rural character and the character of Duleek village.

7.5.9. With regard to visual impacts, the LVIA assesses the impact on 17 viewpoints, which I consider to be relatively representative of the various receptor types within the study area. While photographs were provided from each of these viewpoints, photomontages illustrating the proposed development were only prepared for four of the viewpoints. The photomontages show the proposed development in its initial stage (year 0) and at year 5, when proposed planting has matured.

7.5.10. Having inspected the site and surrounding area and having reviewed the viewpoint photographs and photomontages, I consider that the visual impact of the proposed development on sensitive receptors and at protected viewpoints will be limited due to the site topography, the extensive hedgerows and tree planting and the separation distances from roads and residential dwellings. The visual impact will be most pronounced upon installation of the panel arrays, but will be mitigated by additional planting, albeit that this will take a number of years to become established and provide effective screening. Due to the generally deciduous nature of the hedgerows, glimpsed views of the development will be more available from late autumn to early spring, however from the majority of viewpoints there are several layers of hedgerows between the receptor and the appeal site, which will serve to lessen this seasonal effect. I consider that the greatest potential visual impact arises at residential properties along the local and regional roads in the vicinity of the site. Although none of these receptors will have views of the entire development, parts of the development will be locally visible above hedgerows or through gaps/field entrances. It will also be visible from Longford Road, due to site topography.

7.5.11. In response to the appeal, the applicant is proposing to provide 2m high earth banks with planting on top along the north eastern boundary of the Garballagh site, to reduce inward views of residents along Downestown Road, and also along the eastern boundary of the Downestown site, to reduce views from Longford Road and Longford House, one of the appellants properties. The proposed earth banks at the Garballagh site are located either side of the stream which passes through the site, and having regard to the potential visual impacts in this area, which I consider to be generally acceptable, I do not consider that these earth mounds are necessary or desirable, since it is not clear what effect they would have on drainage patterns and flood risk in the vicinity. If the Board is minded to grant permission, I therefore recommend that reference not be made to compliance with the revised landscape strategy plan.

7.5.12. With regard to protected views from the Brú na Bóinne World Heritage Site, the presence of the tree-lined Drogheda to Navan railway embankment, which runs from east to west to the north of the appeal site, as well as the intervening vegetation, serves to fully screen the proposed development from the WHS. Distant views of the development will be possible from protected view No. 66, which is an expansive view

from a location to the south east of Duleek. Having regard to the mixed nature of the view, which contains urban, industrial and rural areas, I do not consider that the proposed development would have a significant impact on the view.

7.5.13. Following decommissioning of the proposed development, when the panel arrays, inverters etc. are removed, and the lands reinstated to agricultural use, I do not consider that there will be any significant residual landscape or visual impacts.

7.5.14. In conclusion, I recommend that permission be refused for the Downestown site on the basis of its impact on rural character and the character of Duleek village. Subject to this, I consider that the remainder of the development on the Garballagh site is acceptable from a landscape and visual impact perspective, and that its impact would not be so significant as to to outweigh the benefits of providing a significant renewable energy source.

7.6. **Residential Amenity**

7.6.1. I consider that the potential impact of the proposed development on residential amenity is primarily related to visual amenity issues, glint and glare and construction traffic impacts. I do not consider that noise is likely to be a significant issue due to the nature of the development and the substantial set-back distances from dwellings. Visual amenity and construction traffic are dealt with elsewhere in this report, so this section will address potential glint and glare impacts.

7.6.2. Chapter 6 of the Environmental Report includes a glint and glare assessment. Glint results from reflection of the sun off the surface of the PV panel and is seen as a momentary flash of bright light, while glare is a continuous source of bright light resulting from the reflection of the sky around the sun. Since solar panels are designed to absorb light rather than reflect it, glint is most likely to occur in early morning and late evening when the sun is at its lowest in the sky.

7.6.3. The glint and glare assessment submitted is somewhat generic and high level and it does not provide an impact assessment for individual ground based receptors. It states that unless very close to the solar farm, solar reflections will only be possible for up to 5 minutes per day, but it does not provide clear information as to how this figure was arrived at.

7.6.4. Notwithstanding the lack of detail in the glint and glare assessment, I consider that as a result of the presence of dense mature hedgerows surrounding the constituent fields that make up the appeal site, the additional planting and landscaping proposed, and the relatively low number of residential properties in the vicinity, glint or glare is not likely to result in a significant adverse impact on residential receptors or road users.

7.6.5. Nevertheless, in order to address any residual impact that may arise I recommend that, if the Board is minded to grant permission, a condition be included requiring the developer to provide detailed glint and glare surveys following commissioning and on an annual basis for a period of two years to the planning authority in order to confirm that no such glint or glare impact has taken place, and to provide such further mitigation measures as the planning authority may specify in writing to ensure that this is achieved.

7.7. Cultural Heritage

7.7.1. The archaeology, architectural and cultural heritage assessment submitted with the planning application identified all high grade heritage assets (World Heritage Sites, National Monuments in State Care (NMSC) and Historic Gardens and Designed Landscapes (HGDL)) within a 5km study zone. A smaller 2km study zone was utilised for protected structure and recorded monuments. A Zone of Theoretical Visibility was also produced to identify sites with greater potential for being indirectly impacted by the proposed development.

7.7.2. While there are no recorded archaeological, architectural or cultural heritage features within the appeal site, there are eight NMSCs and eight HGDLs within 5km and 48 RMP sites and 18 protected structures within 2km. Of particular note is the Brú na Bóinne World Heritage Site, which is located c. 3.2km to the north.

7.7.3. The NMSCs and HGDLs are all greater than 1km distant from the appeal site, and are substantially screened by mature vegetation and buildings, which serves to reduce or eliminate views and intervisibility with the proposed development. With regard to the Brú na Bóinne World Heritage Site, photographs submitted with the application indicate that the appeal site, and by extension the proposed

development, will not be visible due to the intervening vegetation and topographical features.

7.7.4. The closest recorded archaeological site is a 'habitation site (ME027-057), located c. 300m to the north, within an area of quarrying. It appears that the remains have been entirely removed by quarrying. Other sites within 1km include a number of enclosures and mounds. Having regard to the nature of the proposed development, the extensive screening provided by hedgerows and trees, and the presence of quarries, cement plant and incinerator in the wider area, I do not consider that the proposed development will have a significant impact on the integrity or character of these sites. I consider that the principle source of potential impacts on archaeological remains will be during the construction phase, should unknown features be present on the appeal site. The applicant has proposed a number of monitoring measures in this regard, and submitted a copy of a document entitled 'Solar Farm Developments – Internal Guidance Document', published by the National Monuments Service in November 2016. This outlines the NMS's approach in considering planning applications for solar farms and, notes that solar farms have potentially low levels of ground impact and potential flexibility to avoid impacts, and recommends that geophysical surveying and testing can be addressed by way of condition, rather than by way of further information, where appropriate.

7.7.5. Having regard to the nature of the proposed development which results in relatively limited ground disturbance and the construction methodology which serves to reduce the requirement for extensive earthworks, I am satisfied that there is unlikely to be a significant impact on unknown sub-surface archaeological features. However, having regard to the archaeological potential of the area, I recommend that a suitable condition be included requiring a suitably qualified architect to undertake archaeological surveying, including geophysical surveying, prior to commencement, with monitoring during construction and the submission of a final report to DAHRRGA.

7.7.6. There are three houses close to the site boundary which are shown on the 1st or 2nd edition OS mapping, but which are not protected structures or listed in the NIAH. These are Thomastown House to the west, Garballagh House to the south, and Downestown House which is located between the two parts of the site. Following a request for further information the applicant submitted an Architectural Heritage

Assessment report addressing the potential impact of the proposed development on these three houses, which appears to have satisfied the Planning Authority's Conservation Officer. The houses in question date from the mid-19th century, and are vernacular farmhouses which have been substantially altered over time. Having inspected the site and surrounding area, I am satisfied that the houses are of low sensitivity and that they are all heavily screened by mature trees and hedgerows, which will limit intervisibility with the proposed development. On this basis, I am satisfied that the proposed development will not have any significant impacts on architectural heritage.

7.7.7. In conclusion, I consider that, subject to the attachment of an archaeological condition, the proposed development would not give rise to unacceptable impacts on the archaeological, architectural or cultural heritage of the area.

7.8. Surface Water Drainage and Flood Risk

7.8.1. The Garballagh site is bisected by a stream that runs from west to east. This stream also runs along the southern boundary of the Downestown site and it is a tributary of the River Nanny. As a result of site topography, the majority of the overland flow from the Garballagh site and all of the overland flow from the Downestown site form part of the catchment that enters this stream. The southernmost part of the Garballagh site is part of a separate catchment and overland flow from this area drains to the south east, to a stream on the other side of the R150 from the appeal site. Based on a review of the OPW's Preliminary Flood Risk Assessment ('PFRA') maps, an area of fluvial flooding during the 1 in 100 year event or 1% AEP is located in the vicinity of the stream which traverses the site.

7.8.2. The appellants submitted photographs showing significant flooding in the area, and contend that the proposed development could impact on flooding downstream, either by locating obstacles within the flood zone that could catch debris and exacerbate flooding, or through changes to infiltration rates and run-off patterns as a result of site coverage and the formation of rivulets due to rainfall running off the panels. The appellants contend that the applicant has not undertaken any site-specific site investigations works, and that the soil in the vicinity exhibits poor percolation characteristics which will be exacerbate by the proposed development.

7.8.3. While all of the inverter/transformer stations and substations are located outside of the flood risk area, some solar panels are within the flood risk zone. The panels themselves are a minimum of 0.7m above ground level, and I do not consider them to be a particularly vulnerable use with regard to flood risk. I am therefore satisfied that the flood risk to the proposed development is acceptable. The key issue to my mind is whether the proposed development will increase the risk of flooding upstream or downstream, through changes to infiltration rates/storage capacity, through obstructing flow, or by increasing run-off.

7.8.4. I consider the construction process outlined for the solar farm to be relatively low-impact from a geotechnical perspective, with significant earthworks only occurring for the access tracks, substations and cable routes. The metal uprights supporting the solar arrays will be driven into the soil, without any separate foundations. There will therefore be no significant changes to the topographical profile of the site or to the characteristics of the soil that would affect drainage patterns. With regard to changes to permeable and impermeable areas, the proposed access tracks will be of permeable compacted stone construction, and the impermeable areas created by the substations, inverter stations and spare parts container amount to 0.2% of the overall site area. The applicant is proposing to install a number of shallow, narrow swales in both sites with a storage volume significantly in excess of the run-off from impermeable areas. In their response to the appeal, the applicant states that in response to the appellants concerns regarding flooding, they are proposing to increase the storage volume of the swales to five times the calculated run-off from impermeable areas.

7.8.5. While the site coverage of the solar panel arrays is high, I consider that having regard to the installation methodology for the arrays, the separation distance between rows of arrays, the retention of existing site topography and grassland ground cover that precipitation will continue to infiltrate naturally to ground, with no significant change to overland flow rates. With regard to the potential for silt-laden run-off to enter the stream during construction works, I have addressed this issue in the Ecology section below.

7.8.6. With regard to the appellant's concerns regarding the formation of rivulets due to water running over the lower edge of the panels, I concur with the applicant's contention that the orientation of the arrays perpendicular to, or at a significant angle

to, the direction of overland flow will ensure that rivulets, if they do occur, will serve to slow down the rate of run-off, rather than increasing it. The applicant, in their response to the appeal, also undertake to remove any rivulets that are not reducing run-off, and to harrow the land between solar panels to improve infiltration rates. The applicant's response submission also states that they will maintain all drainage channels both within the site and other accessible local drainage channels, including the existing road culvert under the Downestown Road which they state was the source of the flooding illustrated in the appeal.

7.8.7. I note that the majority of the land within the larger Garballagh site is in arable use, and is therefore likely to be subject to regular ploughing, traversing of heavy agricultural machinery for spraying and harvest and to have highly variable ground cover over the course of the year. Due to this active use of the lands, I therefore consider that the lands are currently likely to experience localised changes in run-off and infiltration characteristics throughout the year and I do not consider that the proposed development will significantly reduce infiltration or exacerbate run-off.

7.8.8. I note that the applicant, in responding to the third party appeal, has proposed the construction of 2m high embankments along the eastern boundary of the Garballagh site, either side of the stream to provide additional visual screening. Due to the proximity of the embankments to the stream, and the lack of information regarding the impact such embankments could have on drainage patterns and flood risk, I recommend that, should the Board be minded to grant permission, that the embankments not be included by way of condition.

7.8.9. Finally, with regard to the access track crossings of the stream, the applicant notes that these will require separate consent under section 50 of the Arterial Drainage Act 1945.

7.8.10. In conclusion, taking into account the mitigation measures proposed, I am satisfied that the proposed development would not negatively impact on current drainage patterns or be at significant risk of fluvial flooding. I am also satisfied that the proposed development would not result in a significant increase in flood risk elsewhere. Therefore, having regard to the above, I am satisfied that the development should not be refused on the basis of surface water management or flood risk.

7.9. **Ecology**

7.9.1. The planning application was accompanied by an Ecological Impact Assessment (included as part of the Environmental Report), including baseline survey results and a Biodiversity Management Plan. The appeal site is not situated either within, or in close proximity to any SAC or SPA, however Thomastown Bog pNHA adjoins the Garballagh site to the west, and the Duleek Commons pNHA is located c. 350m to the east of the Downestown site. The issue of appropriate assessment is dealt with elsewhere in this report.

7.9.2. The field survey undertaken identified eleven habitat types, with the main habitat types being improved grassland, arable and hedgerows. With regard to notable species, the survey found evidence of badger activity, and while a bat survey was not undertaken, a number of trees that had suitable features to support roosting bats were identified. The hedgerows are also identified as offering suitable habitat for small mammals as well as breeding birds and commuting bats. The field survey identified a range of bird species, including reed bunting, grey wagtail and tree sparrow. No evidence of newts or lizards was found, although the hedgerows are considered to provide suitable shelter.

7.9.3. Having regard to the nature of the proposed development, I concur with the applicant's ecologist that the potential impacts on ecology are primarily related to loss or fragmentation of habitats, construction-related disturbance and contamination of surface water. As a result of the installation methodology for the panels, only a very small area of ground will be made inaccessible for plants and animals. The majority of existing hedgerows are to be retained and strengthened, with gaps infilled, although the access tracks will require openings to be inserted in a number of hedgerows. I note that it is also proposed to remove two field boundaries, resulting in c. 450m of hedgerow removal. In the interests of protecting the ecology of the site, and the screening provided by the layers of hedgerows I recommend that if the Board is minded to grant permission, that a condition be included requiring the retention of all existing hedgerows, other than where gaps are required to facilitate access track routes.

7.9.4. In terms of mitigation measures, the applicant is proposing to undertake pre-construction badger, otter and bat roosting surveys, with protective buffers around

sett entrances, installation of fencing with a 10cm gap at the bottom to facilitate mammal movements, to remove scrub and hedgerow areas outside of bird breeding season, and new areas of planting and ecology areas including bat boxes, hibernaculum and insect boxes. Subject to the retention of all hedgerows (other than access track crossings), I consider that these mitigation measures allied with the change from arable land to a species rich grassland will enhance the biodiversity of the area and improve the ecological value of the site.

7.9.5. Thomastown Bog pNHA is located immediately to the west of the Garballagh site. The site comprises a raised bog surrounded by wet woodland and grassland with area of reed beds. The small stream which passes through both parts of the appeal site also passes through the pNHA, indicating a clear hydrological link between the sites. However, the stream flows from west to east, due to Thomastown Bog being located at a higher elevation than the appeal site. The hydrological link is therefore from the bog to the appeal site via the stream. As all water draining from the appeal site will run to the east, away from Thomastown Bog pNHA, I am satisfied that the proposed development will not impact on the integrity of the bog habitat.

7.9.6. With regard to fisheries habitats, I concur with the submission made by Inland Fisheries Ireland at planning application stage, which noted that the ecological assessment contains minimal reference to fisheries habitats and protection of same, with the exception of the Thomastown Bog hydrology report submitted as further information. Having regard to the nature of the proposed development, I consider that the potential impacts are primarily related to the construction phase, including the potential for silt-laden run-off or pollutants such as oils or fuels to enter the stream and the requirement for in-stream works associated with cabling routes and access tracks. The IFI has advised that all in-stream works should take place between July and September and be undertaken in compliance with the IFI Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters 2016. I consider that these issues can be adequately addressed in a Construction Management Plan to be agreed with the Planning Authority, should the Board be minded to grant permission.

7.9.7. In conclusion, I consider that subject to compliance with all identified mitigation measures, the preservation of all hedgerows, and the agreement of a Construction Management Plan with the Planning Authority, the proposed development will result

in an improvement to the biodiversity of the appeal site and will not have a significant adverse ecological impact.

7.10. **Requirement for Environmental Impact Assessment**

7.10.1. Solar photovoltaic electrical generation is not a form of development that is listed in Part 1 or 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended. While specific forms of energy-related development are listed in Schedule 5, such as wind power and hydroelectric, there is no mention of solar energy development. With regard to other potential classes of development, I have had regard to the following in particular:

- Class 3(a) of Schedule 5, Part 2: Industrial installations for the production of electricity, steam and hot water not included in Part 1 of this Schedule with a heat output of 300 megawatts or more.
- Class 10(dd) of Schedule 5, Part 2: All private roads which would exceed 2000 metres in length

7.10.2. I consider that the proposed development does not fall within Class 3(a), as the use of the word ‘and’ rather than ‘or’ indicates that the development type relates to a form of combined heat and power plant.

7.10.3. With regard to ‘private roads’, I note that the definition of ‘road’ utilised in the Planning and Development Act 2000, as amended, is that set out in the Roads Act 1993:

> (a) any street, lane, footpath, square, court, alley or passage,
>
> (b) any bridge, viaduct, underpass, subway, tunnel, overpass, overbridge, flyover, carriageway (whether single or multiple), pavement or footway,
>
> (c) any weighbridge or other facility for the weighing or inspection of vehicles, toll plaza or other facility for the collection of tolls, service area, emergency telephone, first aid post, culvert, arch, gulley, railing, fence, wall, barrier, guardrail, margin, kerb, lay-by, hardshoulder, island, pedestrian refuge, median, central reserve, channelliser, roundabout, gantry, pole, ramp, bollard, pipe, wire, cable, sign, signal or lighting forming part of the road, and
>
> (d) any other structure or thing forming part of the road and—

(i) necessary for the safety, convenience or amenity of road users or for the construction, maintenance, operation or management of the road or for the protection of the environment, or

(ii) prescribed by the Minister.

7.10.4. The proposed development includes the construction of 6.1 km of new access tracks. I note that the statutory notices refer to both 'access roads' and 'internal access tracks' forming part of the proposed development, although the Environmental Report and drawings use the term 'access tracks'. The Board may wish to consider whether the structures described as access tracks would fall within the abovementioned definition of a road. The proposed tracks are 4m wide, with a compacted stone surface, and their intended use is stated to be for the purpose of construction, maintenance and ultimate decommissioning of the development. The purpose of the tracks is not for the conveyance of people and vehicles, *per se*, except as necessary in connection with the construction, maintenance and decommissioning of the development. On that basis, I therefore consider that the 'access track' proposed is materially different from a 'road' as defined in legislation.

7.10.5. I therefore conclude that the proposed development does not fall within Part 1 or Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, and I therefore concur with the applicant's submission that an Environmental Impact Assessment is not required.

7.11. Other Issues

7.11.1. <u>Grid Connection</u>

7.11.2. In the planning application as originally submitted, the applicant indicated that there were two options for substations within the site, pending confirmation of the grid connection methodology. The proposed development therefore included a 38kV substation on either the Garballagh or Downestown site, or a 110kV substation on the Garballagh site. An indicative cable route was indicated running along the public road to the existing 38kV Duleek substation located to the east of the appeal site. In their response to the appeal, the applicant subsequently clarified that a grid connection offer will be issued in August 2017 and that it is intended to connect to the 110kV transmission line by means of a 110kV substation on the Garballagh site.

The appellant, in responding to the applicant's response submission, contends that such a connection would result in the proposed development constituting strategic infrastructure development as it would come within the remit of section 182A of the Planning and Development Act 2000, as amended, as it would comprise electricity transmission development by virtue of the 110kV voltage.

7.11.3. Section 182A(1) of the PDA states that:

> "Where a person…intends to carry out development comprising or for the purposes of electricity transmission…the undertaker shall prepare, or cause to be prepared, an application for approval of the development under section 182B and shall apply to the Board for such approval accordingly."

7.11.4. Section 182A(9) of the PDA states that:

> "'transmission', in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999 but, for the purposes of this section, the foregoing expression, in relation to electricity, shall also be construed as meaning the transport of electricity by means of—
>
> (a) a high voltage line where the voltage would be 110 kilovolts or more, or
>
> (b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not."

7.11.5. Section 2(1) of the Electricity Regulation Act 1999 defines transmission as follows:

> ""transmission", in relation to electricity, means the transport of electricity by means of a transmission system, that is to say, a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board may, from time to time, with the approval of the Commission, specify as being part of the distribution system but shall include any interconnector owned by the Board."

7.11.6. Having reviewed the planning application documentation and drawings, I am satisfied that the connection of the solar farm to the grid does not form part of the proposed development. I am therefore satisfied that the proposed development can

be assessed on its merits as it comes before the Board as a third party appeal under section 37 of the PDA. Since I consider that the connection of the proposed solar farm to the transmission system does not form part of the proposed development, the grid connection may require further consent. I consider that the nature of any such application, and whether it comprises strategic infrastructure development, is dependent on the form of connection proposed and can be considered at that time. If the Board is minded to grant permission, I recommend that a condition be included to clarify that the 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.

7.11.7. Duration of Permission and Development

7.11.8. I note that the applicant is seeking a 10-year permission. Having regard to the construction period which is less than one year and the applicant's intention to connect to the grid within the site boundaries, I do not consider that a 10-year permission is warranted in this instance. Such permissions are typically used in respect of energy projects where there is a lengthy construction period or uncertainties with regard to the grid connection timeline or routing. Those issues do not appear to arise in this case. The appeal site is considerable in size and is in close proximity to Duleek village, including undeveloped zoned lands and a number of residential properties. I consider that a 10-year permission on such a large site would create uncertainties for the local community with respect to land use planning in the area and would not be appropriate. I therefore recommend that, if the Board is minded to grant permission that the duration of the said permission be limited to five years.

7.11.9. The applicant is also seeking a 35-year duration for the development. Having regard to the scale of the appeal site and its proximity to Duleek village, I consider that a 25-year duration would be more appropriate in order to allow the planning authority to review the operation of the development in light of the circumstances then prevailing, particularly with regard to future land use requirements for Duleek village.

7.11.10. Community Fund

7.11.11. The applicant proposes a community fund, set at €200 per hectare per annum, index linked over a period of 35 years, which is the expected operational life

of the development. This would produce c. €1,050,000 over 35 years, based on a 150 ha site area. However, the applicant indicates that development contributions payable would be subtracted from this total, with the remainder forming the direct community fund. The Board may wish to consider a condition in this regard.

7.12. **Appropriate Assessment**

7.12.1. Section 3.16 of the Environmental Report states that an appropriate assessment screening was undertaken as part of the wider screening opinion request. Paragraph 5.8 of the Planning Report submitted with the application also states that a Stage 1 Natura Screening Statement has been prepared. However, no such statement appears to have been submitted with the planning application and designated sites are instead addressed within the Ecological Impact Assessment which forms part of the Environmental Report.

7.12.2. The appeal site is not located in or adjacent to any designated Natura 2000 sites. The closest Natura 2000 sites are the River Boyne and River Blackwater SPA (Site Code 004232) and SAC (Site Code 002299), c. 3km to the north of the site. I note that the study area utilised by the applicant's ecologist for the identification of designated sites was limited to a 5km radius, which could be considered relatively low, and which failed to identify the River Nanny Estuary and Shore SPA (Site Code 004158), 11.2km to the east, which I consider to be a relevant site for further consideration, having regard to the fact that the small stream that traverses both parts of the appeal site is a tributary of the River Nanny.

7.12.3. The sole qualifying interest of the River Boyne and River Blackwater SPA is the Kingfisher (*Alcedo atthis*), while the qualifying interests of the SAC are as follows:

- River lamprey (*Lampetra fluviatilis*)
- Atlantic salmon (*Salmo salar*)
- Otter (*Lutra lutra*)
- Alkaline fens
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*.

7.12.4. The qualifying interests of the River Nanny Estuary and Shore SPA are as follows:

- Oystercatcher (*Haematopus ostralegus*)
- Ringed Plover (*Charadrius hiaticula*)
- Golden Plover (*Pluvialis apricaria*)
- Knot (*Calidris canutus*)
- Sanderling (*Calidris alba*)
- Herring Gull (*Larus argentatus*)
- Wetlands

7.12.5. The conservation objectives for the SAC and SPAs listed above are to restore/maintain the favourable conservation condition of the relevant habitats/species as appropriate.

7.12.6. There is no connective aquatic habitat linking the appeal site to the River Boyne and River Blackwater SPA, and I concur with the ecologist that there is not likely to be any significant impact on the Kingfisher population of the SPA. Similarly, due to the lack of an aquatic pathway, there is not likely to be a significant impact on lamprey, salmon or alkaline fens and forests within the SAC. With regard to otters, while the applicant's ecologist notes that they can travel significant distances when foraging, no signs of otters were found during the baseline survey although I note that the applicant is proposing to undertake an otter survey prior to commencement. Having regard to the nature of the development, which does not entail significant excavations and which will see a significant area of arable land returned to species rich grassland between the solar panel arrays with additional planting, and subject to compliance with best practice construction methods, I do not consider that the proposed development is likely to result in a significant impact to the otter population of the SAC.

7.12.7. With regard to the River Nanny Estuary and Shore SPA, the stream which passes through the site provides a pathway to the SPA, since it is a tributary of the River Nanny, albeit that the SPA is located c. 11.2km to the east of the appeal site. Having regard to the qualifying interests of the SPA, the distance of the appeal site from the SPA, and the nature of the proposed development, I am satisfied that the undertaking of development in accordance with best practice construction methods

would ensure that the proposed development is not likely to have a significant impact on the qualifying interests of the SPA.

7.12.8. 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 River Boyne and River Blackwater SPA (Site Code 004232) and SAC (Site Code 002299), the River Nanny Estuary and Shore SPA (Site Code 004158), 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**

8.1. I recommend that planning permission should be REFUSED for the eastern solar array at Downestown for the reasons marked (1) below and GRANTED for the western solar array at Garballagh, Thomastown and Gillinstown, subject to conditions, for the reasons and considerations marked (2), as set out below.

9.0 **Reasons (1)**

1. The proposed development as a whole would involve the use of an extensive area of land for a substantial scale of solar power. Having regard to the cumulative scale of both the eastern and western arrays, the potential impacts on the rural character of the area accordingly, and the potential effects of the eastern array on the amenity and character of the village of Duleek, the Board is not satisfied that the proposed development would not seriously injure the amenities of the area. The proposed eastern array would, therefore, be contrary to the proper planning and sustainable development of the area.
2. It is considered that the proposed development would endanger public safety by reason of traffic hazard because of the additional traffic turning movements the development would generate on a substandard road at a point where sightlines are restricted in both directions.

10.0 **Reasons and Considerations (2)**

10.1. Having regard to the provisions of national and regional policy objectives in relation to renewable energy, the provisions of the Meath County Development Plan 2013 – 2019, 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 reduced scale of development of the western array 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.

11.0 **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 to the Planning Authority on the 20th day of December 2016, 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 interest of clarity

2. The period during which the development hereby permitted may be carried out shall be five 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 25 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. 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.

5. The proposed development shall be undertaken in compliance with all environmental commitments made in the documentation supporting the application.

   Reason: To protect the environment.

6. (a) The landscaping proposals shall be carried out within the first planting season following commencement of construction of the solar PV array. All existing hedgerows (except at access track openings) shall be retained. The landscaping and screening shall be maintained at regular intervals. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted.

(b) Additional screening and/or planting shall be provided so as to ensure that there is no glint impact on adjoining houses as a result of the development. Upon commissioning of the development and for a period of two years following first operation, the developer shall provide detailed glint surveys on an annual basis to the planning authority in order to confirm that no such glint impact has taken place, and shall provide such further mitigation measures, as the planning authority may specify in writing, to ensure that this is achieved.

Reason: To assist in screening the proposed development from view and to blend it into its surroundings in the interest of visual amenity, and to mitigate any glint impact from the proposed development upon adjoining residential amenities.

7. The inverter/transformer stations, storage module and all fencing 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; the roof shall be of black tiles/slates.

   Reason: In the interest of the visual amenity of the area.

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

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

   (c) Each fencing panel shall be erected such that for a minimum of 300 millimetres of its length, its bottom edge is no less than 150 millimetres from ground level.

   (d) The solar panels shall have driven or screw pile foundations only, unless otherwise authorised by a separate grant of planning permission.

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

   Reason: In the interest of clarity, of visual and residential amenity, to allow wildlife to continue to have access to and through the site, and to minimise impacts on drainage patterns and surface water quality.

9. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. 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.

10. The construction of the development shall be managed in accordance with a Construction 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, surface water management proposals, the management of construction traffic and off-site disposal of construction waste. The plan shall also include a construction method statement to ensure the avoidance of impacts on badgers and otters.

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

11. 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 interest of environmental protection and public health.

12. 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 reinstatement of public roads that may be damaged by construction transport 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 the reinstatement of public roads that may be damaged by construction transport.

13. 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.

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

An Bord Pleanála to determine the proper application of the terms of the Scheme.

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

Niall Haverty

Planning Inspector

26th June 2017