

Inspector's Report ABP-301151-18

Development A 10-year planning permission for

construction of a 31.5 MW solar PV

farm, boundary security fencing,

CCTV, electrical cabling and ducting, access tracks, access gates and all associated ancillary development and

landscaping works.

Location Harlockstown, Ashbourne, Co. Meath.

Planning Authority Meath County Council

Planning Authority Reg. Ref. RA/170479

Applicant(s) Collegian Property Ltd.

Type of Application Permission.

Planning Authority Decision To grant with conditions.

Type of Appeal Third party.

Appellant(s) Martin and Liz Walsh.

Observer(s) Regina Doherty TD.

Date of Site Inspection 11th July 2018.

Inspector Deirdre MacGabhann

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1.0 Site Location and Description

- 1.1. The 54.57ha appeal site lies c. 1.5km to the south west of Ashbourne, in the townland of Harlockstown, County Meath. It comprises 9 agricultural fields. The R125 runs to the north of the site and is a busy road with high traffic speeds. Access to the site is from an existing gate along this section of the R125. The M2 lies to the east of the site and is generally separated from it by mature vegetation/an embankment alongside the motorway. Local road L-10073-14 (Harlockstown Road) runs to the south east of the site and again is generally separated from it by mature vegetation. A minor track lies to the south of the site.
- 1.2. To the west of the existing access to the site are two residential properties and a garden centre. A small number of detached residential properties also lie directly opposite the site entrance.
- 1.3. At the time of site inspection, the agricultural fields were sown with an arable crop and were separated by, generally strong, mature hedgerows. Watercourses were evident alongside field boundaries, and a pond to the north west of the site (south west of the access to the site). Views into the site were possible from the R125 and Harlockstown Road as the roads pass over the M2. Elsewhere views of the site are generally very restricted due to roadside and/or intervening vegetation, topography and, to a lesser extent, rural development.

2.0 **Proposed Development**

2.1. The proposed development, as revised by further information (re-advertised in January 2018), comprises the construction of a solar farm on a site of 54.57 ha. The development will generate 31.5 MW of power (sufficient energy to power 5,700 houses per annum) and comprise 121,340 photovoltaic panels. The solar panels would be 'static' i.e. they would not move throughout the day, tracking the sun. The panels would be mounted on 1,329 galvanized aluminium fames (tables) with 55 photovoltaic modules on each table. Each table would be on ground mounted frames, with the tables laid out on an east-west access across the site. Each table would have a southern orientation of 25 degrees to maximise sunlight (page 10,

Environmental and Planning Technical Assessment). The lower part of the structure would be 0.6m above ground and the maximum height of the structure would be c.2.7m. Parallel rows of tables would be set 6.0m from each other. A 10m buffer is shown at all external site boundaries and from internal hedgerows.

- 2.2. The solar panels will be connected to the grid via:
 - 14 Medium Voltage substation hubs, located at strategic locations across the site connected by underground cable and accessed by an internal network of access roads, and
 - ii. Two sub-station buildings, located in the north-west corner of the site. These comprise a Distribution System Operator (DSO) building and a Customer Sub-station. All electricity cables from the site will enter the DSO building through underground cable and exit, via underground cable, to the Customer Substation.
- 2.3. The applicant states that a grid connection application has been made to ESB Networks, but at the time of application there was no further information regarding this.
- 2.4. Access to the site is from the public road to the north of the site, using the existing access point, and sightlines of 160m in each direction are shown. A swept path analysis indicates that HGVs can turn into and out of the site and can turn within the construction compound.
- 2.5. A construction compound is proposed in the second field to the south of the entrance. To the north east of the compound are the two sub-stations referred to above, a single storey spares building and a communications pole, with satellite dish, WIFI and GSM mounted on a steel pole (overall height 4m).
- 2.6. The entire site is bounded by 2m high deer fencing which has mammal gates at 100m intervals. CCTV is proposed on the perimeter of the site on 4m poles. The Site Landscape Plan shows retention of existing mature trees and hedgerows, new hedgerow planting, hedgerow strengthening and species rich grassland between rows of tables. Permission is sought for a period of 10-years and the solar farm has a planned lifespan of 25 years and would take approximately 5 months to build.
- 2.7. Submitted with the application are the following:

- Environmental and Technical Planning Assessment. This includes the following appendices:
 - Appendix 1 Ecological assessment, including a screening for appropriate assessment and environmental impact assessment.
 - Appendix 2 Landscape and Visual Impact Assessment.
 - o Appendix 3 Biodiversity Management Plan.
 - Appendix 4 Construction Traffic Management Plan.
 - Appendix 5 Decommissioning Statement (to comprise the dismantling and removal of all solar farm components from the site).
- Glint and Glare Assessment.
- Draft Construction Environmental Management Plan and draft Waste Management Plan.
- Transport Statement.
- Site Landscape Plan Showing proposed new hedgerows, hedgerow strengthening and planting of species rich grassland between rows of solar panels.

3.0 Planning Authority Decision

3.1. **Decision**

- 3.1.1. On the 15th February 2018, the planning authority decided to grant permission for the development subject to 18 conditions. Most of these are standard. The remainder refer to the following:
 - No. 2 Restricts output to 31.5MW only.
 - No. 3 Requires the relocation of the MV substation from the first field,
 beside the access point, to the field to the south of it.
 - No. 4 Requires the 160m sightlines to be in place prior to commencing works on site.
 - No. 5 Requires all landscape works to be completed prior to the commencement of development, to reduce the risk of glint and glare to motorists to zero.

- No. 6 Requires a Glint and Glare inspection and survey from local receptors
 post construction and thereafter (with remediation) if issues arise, to ensure
 that there is no risk to motorist on public roads.
- No. 12 Requires all structures to be removed no later than 25 years from the date of commencement of development and the site to be reinstated.
- No. 15 Requires the bottom edge of each fencing panel to be set, for a minimum of 300mm of its length, no less than 150mm from the ground.
- No. 18 Requires payment of a section 48 development charge.

3.2. Planning Authority Reports

Planning Reports

- 3.2.1. There are two planning reports on file. The first, dated 26th June 2017, describes the site and its planning history, national and local planning policy and summarises submissions made. It considers the merits of the application under a number of headings including, the need for environmental impact assessment, principle, access to the site, visual effects, environmental effects, impacts on archaeology and ecology, appropriate assessment and grid connection. It recommends further information in respect of the location of the construction compound, buffer to site boundaries, impact of glint and glare on local receptors, noise emissions during construction, draft Construction and Environmental Management Plan, draft Waste Management Plan and the matters raised by TII (below) and third parties (below).
- 3.2.2. The second report of the 14th February 2018, considers that the applicant has generally addressed the matters raised in the request for further information. It recommends granting permission for the development subject to condition.

Other Technical Reports

 Meath Road Design Office – Two reports. No objections raised in either subject to conditions, including the provision of 160m sightlines from a setback distance of 3m from the edge of the regional road; completion of all landscaping works prior to construction commencing; completion of a post construction glint and glare inspection, and thereafter if issues arise. Environment – Two reports. The first recommends further information in respect of glint and glare during operation, noise during construction and provision of a draft Construction Management Plan and a draft Waste Management Plan. The second report recommends conditions to be attached to any permission in respect of waste generated during construction, noise mitigation and implementation of measures set out in the Construction Environmental Management Plan.

3.3. Prescribed Bodies

- 3.3.1. The following prescribed bodies made reports on the application for the proposed development to the planning authority:
 - DAA (16th May 2017, 8th January 2017) No comments.
 - IAA (3rd October 2017) Recommend that the development be assessed for any potential glint and glare issues in relation to aviation, in particular, aircraft flying to and from Dublin airport.
 - IFI (16th May 2017) State that the development is within the catchment of
 the Broadmeadow River, an important salmonid system for Brown Trout
 throughout and Salmon in the lower reaches, and make a number of
 observations, including that all works to be completed in line with a
 Construction Management Plan which ensures good construction practices;
 and that an undisturbed buffer zone between the development area and the
 river bank be maximised (10m) and retained in as natural state as possible.
 - TII (22nd May 2017 and 8th January 2018) In their first submission, TII consider that the development would adversely affect the operation of the national road network as (a) there is insufficient information on the impact of the development on the operation of the national road network in the vicinity of the site, (b) there is no assessment of potential glint/glare impacts on the M2, (c) Grid Connection proposals are unclear. TII also request that appropriate screening, landscaping and other mitigation is included in any grant of permission to avoid impacts on the national road due to driver distraction and/or glint/glare impact. Subsequent to the applicant's submission of further information, TII remain of the opinion that the

development would adversely impact on the safety of the national road network (due to traffic hazard arising from the scale of the development and distraction of drivers, glint and glare on the M2, insufficient information with regard to grid connection and the impact of 'pit locations' on national road infrastructure).

3.4. Third Party Observations

- 3.4.1. On file are observations from objectors who live in the vicinity of the development and from local councillors. They raise the following concerns:
 - Absence of national guidelines and the loss of agricultural land.
 - Impact on peaceful enjoyment of homes (contrary to Article 8 of the European Convention on Human Rights) – Visual impact of development, impact on privacy (CCTV) and impact of glint and glare.
 - Road safety concerns.
 - Risk to air traffic Arising from glint and glare (development is on a flight path).
 - Development will contravene the Birds Directive Impact on rookery and wild birds.
 - Precedent set by the Board's determination of PL26.247217 for a similar solar farm development (permission was refused on the grounds of prematurity, pending adoption of national, regional or local guidance and potential impacts on rural character, visual and residential amenity and agricultural land use patterns).
 - Absence of consultation with local residents.
 - Failure to address concerns of residents and TII.
 - Defective site notice (no date or name of applicant). Corrected but only after planning authority was alerted by an objector.
 - Cumulative effects of the development with other solar farms in the rea.

4.0 **Planning History**

- 4.1. On file is reference to a planning application made previously in respect of the appeal site for a solar farm (PA ref. RA170384), which was withdrawn. In addition, the following solar farms have been granted near site:
 - AA160553 9.7WM solar farm, c.2.5km to the east of the development at Bullstown, Donaghmore, Ashbourne, Co. Meath.
 - AA161441 20MW solar farm, c.3.6km to the north west to the development at Doghtog, Crakerstown and Bodeen, north of Ratoath, Co. Meath.

5.0 Policy Context

5.1. **EU/National Policy**

- 5.1.1. Relevant European and national policy documents are:
 - EU Renewables Directive 2009/28/EC Sets out an overall EU policy for the
 use of energy from renewable sources in the EU, including overall European
 targets for use of renewables (20% by 2020).
 - The National Renewable Energy Action Plan 2010 In response to the EU
 Directive (above) this Action Plan sets out how the renewable energy targets
 for Ireland, of 16%, will be achieved by 2020.
 - Delivering a Sustainable Energy Future for Ireland The Energy Policy
 Framework 2007 to 2020 This policy document sets out the government's
 energy policy for the country over the Plan period. It includes strategic goals
 to accelerate the growth of renewable energy sources.
 - Ireland's Transition to a Low Carbon Energy Future 2015-2030 (DCENR) –
 This policy document provides an energy policy update for the period 2015 to
 2030. It states that 'the long-term development of Ireland's abundant, diverse
 and indigenous renewable energy resources is a defining element of this
 energy policy'. In respect of solar energy, it states:

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

Proposed actions set out in the policy document include the publication of a renewable electricity policy and development framework for large scale on shore renewable electricity projects.

5.1.2. In addition to the above, the planning authority refer to the SEAI funded Future Analytics 'Planning and Development Guidance Recommendations for Utility Scale Solar Photovoltaic Schemes in Ireland' (2016) and the applicant refers to BRE/Cornwall County Council 'Planning Guidance for the Development of Large Scale Ground Mounted Solar PV Farms (2013)'.

5.2. Meath County Development Plan 2013-2019

5.2.1. Energy policies are set out in Section 8.1 of the Meath County Development Plan. Consistent with national objectives, the Plan supports the production of energy from renewable sources, such as solar, subject to normal planning considerations, including, the potential impact on areas of environmental or landscape sensitivity and Natura 2000 sites (Policy EC POL 3). Policy objective EC OBJ 3 seeks to investigate the preparation of a renewable energy strategy promoting technologies which are most viable in the county.

5.3. Natural Heritage Designations

5.3.1. The site lies >12km from any site of nature conservation interest, including Natura 2000 sites (see attachments).

6.0 The Appeal

6.1. Grounds of Appeal

- 6.1.1. The third-party appellant raises similar matters to those set out in observations. In summary, these are:
 - Inadequate public notice The site notice was erected c.1km from the main site entrance (see video to submission), on a recessed structure, at a low level and within the 80kmph speed limit zone where there are no footpaths. The main entrance for construction and maintenance is the L00073 at Harlockstown Lane, just meters from the L00073/R125 interface. At no stage was a site notice in place at the main entrance (see video). The applicant, therefore, failed to comply with Article 19 of the Planning and Development Regulations. Given the location of the site notice, the appellants were not aware of its existence until 9th June 2017, and had little time to meet the deadline for submissions. As a direct consequence of the obscure site notice, the wider community was deprived of their statutory right to object to or to share the cost of a collective objection. The appellant refers to two judicial reviews which are relevant to this issue, Kelly and Cork County Council [2013] IEHC 122 and Marshall v Arcklow Town Council [2004]. The planning permission must therefore be invalidated.

Traffic:

Impact of traffic on the local road network/road safety – The R125 is a dangerous road (width and alignment), with high and fast vehicle movements. The Transport Statement provided by the applicant is inadequate and fails to meet the requirements of TII. Construction traffic will result in a substantial increase in traffic on the R125 i.e. of c.10%. The applicant's assertion that the development will have a negligible impact is not supported by fact. There is a history of accidents (some fatal) on the R125 between Junction 3 and the site. The Traffic Statement does not refer to the width of HGVs that will be accessing the site, which is relevant given the narrow width of the road. The Harlockstown Lane entrance to the site would need to be widened for HGVs and its use would present an

- unacceptable risk to local residents/all road users. The developer's proposals for a 'tracking entrance' suggest another entrance to the site directly off the R125. The Traffic Statement refers to flows from the M2 to Ashbourne, but no data on traffic on the R125 from Junction 3. This is a serious omission.
- o Conflict with policies of the County Development Plan The planning authority's decision contravenes policies Trans POL SP 14, Trans POL 15 and Trans POL 28 (protecting the capacity and safety of the road network). TII refers to section 53(1) of the Roads Act 1993, which must be adhered to. The application must be refused on the grounds that the information provided by the applicant is incomplete and/or contradictory; that it will adversely affect the operation and safety of the national road network; traffic movements will increase by c.10%; developer has failed to submit a full Transport Assessment; development is contrary to the County Development Plan; ministerial and/or State Authority consent is required in relation to any land comprised in a motorway or busway (provision of sightlines would require land in the developer's ownership to be incorporated into a busway and require Ministerial approval under section 53 of the Roads Act).
- Traffic noise, vibration, vehicle generated emissions, lighting glare, dust and non-point pollution and visual impact should also have been considered by the planning authority.
- Impact on rural landscape The development would demonstrably alter the prevailing land use in the area and would represent an incongruous and dominant impact on the rural landscape. There are clear and uninterrupted views from the appellant's home immediately adjacent to the site (see appendix 16 of submission). The appellant's home is elevated and the existing view looks down on the developer's site and will be unsightly. The nature and siting of the development, having regard to the EU Landscape Directive, National Landscape Strategy for Ireland 2015-2020 and policy contained in the County Development Plan, and in the absence of a clear policy direction, would not be in accordance with the proper planning and

- sustainable development of the area. Cumulative effects on landscape with other solar farms.
- Inadequate mitigation measures Mitigation measures are inadequate.
 Landscape and screening are ineffective as the appellant will look down on the development from an elevated position, and are provided at minimal cost.
- Impact on agriculture The scale of the proposal is substantial (135 acres), it
 will sterilise lands from agricultural use and is not compatible with policies for
 agricultural activity. Development, on a cumulative basis, has the potential to
 undermine the strength of agriculture in the area and would conflict with
 policies in Food Harvest 2020. SEAI funded research and UK guidance
 recommends that solar farms be sited away from good agricultural lands.
- Invasion of privacy/CCTV The application will result in loss of privacy due to the installation of pole mounted CCTV.
- Glint and glare Too costly to submit an expert report to counter the
 applicant's glint and glare assessment. The development will result in
 evening glare between 19.12 and 19.45 between March and September on
 the flyover on the local road directly east of the site. This will cause a traffic
 hazard/accident. Mitigation measures to address glare at the four potential
 points identified by the applicant are inadequate.
- Precedent By virtue of its nature, scale and location the development would set an undesirable precedent for similar developments and militate against the preservation of the landscape and cultural resources in the area.
- Absence of consultation The applicant did not consult with the community. A
 week after permission was granted major earthworks commenced on site.
- Grid connection Speaking at the Solar PV Ireland Conference 2016, the Commission for Energy Regulation said the scale of application 'far exceeds what can be practically and effectively delivered' and there is 'significant uncertainty' about how many projects will go ahead.
- Impact on birds Concerns on impact of development on rookery and birds not addressed.

 Other matters – Mistakes/contradictions/lack of clarity in the application documentation, inadequate assessment of the potential risk of flooding and no reference to compliance with Transmission Lines Solar Farm Clearances, 2017 report.

6.2. Applicant Response

- 6.3. The applicant makes the following comments on the appeal:
 - Preliminary Grounds The site notice was erected at the main, and only, entrance to the site. It was deemed acceptable by the planning authority. The notice is easily visible from the public road, more so coming from Ratoath, but it is not in an obscure location. The application was advertised in a local newspaper. Locals had ample time to see the public notices. While there is no specific guidance on solar farms, applications for solar farms have been adjudicated on by planning authorities and the Board, and with reference to relevant policies.
 - Road traffic/safety Traffic safety is of utmost importance to the applicant.
 The planning authority have considered and are satisfied with the findings of the glint and glare study. All issues relevant to this issue are contained within the Traffic Statement and Glint and Glare Study.
 - Landscape/visual impact/loss of amenity The development has been
 designed to integrate into the existing environment, including neighbouring
 property. There are no views of the development outside of the 2.5km zone.
 Available views within the 2.5km zone are all within 100m of the
 development. Vegetation in the surrounding area reduces the visual impact
 of the development.
 - Mitigation Consider the mitigation measures to be adequate and appropriate.
 - Impact on privacy The CCTV will be focuses on the site only and will comply with all relevant requirements for data protection.
 - Cumulative impact Dealt with in the Landscape and Visual Impact Assessment.

- Glint and Glare The applicant has used the only Federal Aviation
 Administration tool for measuring ocular impact of solar PV systems on receptors. This, with GIS mapping, allowed a robust assessment of glint and glare.
- Loss of agricultural land The land is not fully lost to agriculture.
 Approximately 35% of the site will be covered in panels, the rest is still arable/agricultural and sheep can still graze around the mounted structures.
 The lands are not zoned in the Development Plan and applications of any kind, can therefore be made on them.
- Local community There will be significant benefits to the community
 (availability of green energy, ability of country to attract major investment and
 help meet renewable energy targets). No major earthworks have been
 carried out on site.
- Grid connection A grid connection has been submitted to ESB/EirGrid.
 However, no information is available currently regarding grid connection to the site.

6.4. Planning Authority Response

6.4.1. Refer the Board to the Planning Report on file and request the Board to uphold their decision.

6.5. Observations

- 6.5.1. Observations on the appeal were made by the following parties:
 - Regina Doherty TD Supports the objection made by the appellant.

6.6. Further Responses

6.6.1. None.

7.0 Assessment

7.1. I have read the appeal file and inspected the site and surrounding area. I consider that the key issues arising in respect of the appeal comprise the following:

- Principle/Loss of agricultural land.
- Location of site access/adequacy of public notices/consultation.
- Road Safety (including the effects of glint and glare).
- Visual impact (including the effects of glint and glare on residential development).
- Adequacy of mitigation measures.
- Impact on privacy.
- Grid connection.
- Impact on birds.
- Other matters (application documentation, flood risk and clearance from transmission lines).

7.2. Principle/Loss of Agricultural Land.

- 7.2.1. The appeal site lies outside the development envelope of any urban area and comprises unzoned, agricultural land. The site is relatively large, extending to 54.57ha and would result in the temporary loss of agricultural land, from its full utilisation, over the 25 years of the development (sheep will be able to graze on the site). In this regard, the decommissioning statement provides the details regarding the proposed restoration of the site to return it to its pre-development condition, and agricultural use, within 6 months of cessation of activities.
- 7.2.2. Currently there are no national planning guidelines for solar farms, for example, setting out a strategic approach to the location of solar farms on agricultural land or guidance on the likely cumulative effects of such developments on agriculture. Further, dual objectives exist at national policy level for greater use of energy from renewable resources (see Policy section above) and for the substantial development of the agricultural industry (as set out in Food Harvest 2020).
- 7.2.3. At a local level, a core principle of the Meath County Development Plan 2013 to 2019 is to support agriculture and agricultural related development. However, policies also encourage the diversification of the rural economy, including for renewable energy production (ED POL 19) and the production of energy from

- renewable sources, including solar, subject to normal planning considerations (EC POL 3).
- 7.2.4. Given the large area of County Meath which is devoted to agriculture, the proposed development, of itself, will not seriously detract from the agricultural land resource in the county and would, in principle, be consistent with the policies for greater use of renewable energy and the diversification of the rural economy.
- 7.2.5. With regard to cumulative loss of agricultural land, reference is made in submissions to a number of solar farms in the vicinity of the site, however, even this number in total would constitute a relatively small area of the overall agricultural lands in the County. Further, there is no submission, observation or appeal on file by any representative of the agricultural industry identifying or demonstrating significant loss of agricultural land.
- 7.2.6. Having regard to the above and, whilst I accept that the needs of different rural land uses need to be balanced, in the absence of national guidelines on solar farms and industry specific concerns regarding the loss of agricultural land and the temporary nature of the proposed development, I consider that the proposed development will not result in any significant cumulative impact on the agricultural land resource in the county.

7.3. Location of Site Access/Adequacy of Public Notices/Consultation.

- 7.3.1. It is evident from the appellant's submission that there is some confusion regarding the entrance to the site. However, the plans for the development clearly show a single access to the site, for traffic at construction and operation stage, directly from the R125 Regional Road, to the north of the site in the location of the existing access to the site (and not from Harlockstown Lane L10073, to the east of the site, as suggested by the appellant).
- 7.3.2. The site notice has been placed at this location and it has been determined to be in compliance with statutory requirements by the planning authority. Further, it is evident from the material on file and inspection of the site, that the site notice is visible from the public road, and in this respect, is in accordance with Article 19 of the Planning and Development Regulations, 2001 (as amended). In addition, the purpose of the statutory notices has clearly been served, as evidenced by the

- submissions made on the planning application and with the appeal submitted to the Board.
- 7.3.3. With regard to public consultation, whilst it may be good practice for applicants to consult with members of the community in respect of proposed development, there is no statutory requirement to do so, outside of the provision of site and newspaper notices.

7.4. Road Safety

- 7.4.1. The R125 is a busy regional road which links Ratoath to Swords, via Ashbourne. Approximately 2km to the east of the site access to the M2 is available via a link road from the R125. At the time of site inspection there was a constant flow of traffic on the R125, passing the appeal site, with vehicles moving at high speeds and comprising a large number of HGVs.
- 7.4.2. As stated, access to the site is proposed directly from the R125, where road speed is limited to 80kph. Appropriate sightlines on a road of this nature are 160m in both directions, to the nearside edge of the major road, 3m back from the major road. The applicant's Access Plan (drawing no. H013) indicates 160m sightlines at 3m back, but these are measured to the centre of the R125. Having regard to my inspection of the site and the plans submitted, I consider that 160m sightlines can be achieved to the nearside edge of the R125, at the site entrance, within the applicant's landholding and I note that the planning authority has included this requirement as a condition of their permission.
- 7.4.3. I do not accept the appellant's interpretation of section 53(1) of the Roads Act, 1993, or that provision of the sightlines would require consent of the Minister. The sightlines can be achieved within the applicant's landholding and these lands do not form part of, and will not form part of, a motorway, a busway or a protected route.
- 7.4.4. The applicant's Construction Traffic Management Plan (Appendix 4, Environmental and Planning Technical Assessment Report) states that the panels and associated infrastructure for the development will enter Ireland through Dublin Port and travel to the site via the Port tunnel and M50 before moving onto the M2 and then the R125 to the site (via Junction 3). The Traffic Management Plan estimates c.15 HGV movements on average per day over the construction phase of the development (12)

weeks), with 20 to 50 vehicles, daily, to accommodate the movement of up to 150 construction personnel. A swept path of HGV movements is provided in drawing nos. H014 to H016 and the following measures are proposed to manage traffic movements, including:

- Separation of delivery and other vehicles,
- Supervision of deliveries and access to the site by an appropriately trained, qualified site access supervisor,
- No movement of delivery vehicles during peak hours (8am to 9am and 5pm to 6pm), and
- A dedicated off-road parking area for all staff.
- 7.4.5. Upon operation, the Construction Traffic Management Plan states there will be limited traffic movements associated with the site (i.e. a site visit every 3 to 4 months using standard size vehicles).
- Further to the observations made by TII, the applicant submitted a Transport 7.4.6. Statement to the planning authority. It is stated that a full Transport Assessment was not submitted due to the limited transport related impacts of the development. It reiterates information set out in the Traffic Management Plan. In Section 4.2.1 it states that a maximum of 26 two-way HGV trips will occur in the third week of construction (Table 4.2, Transport Statement). It adopts a more conservative approach, than the initial Construction Traffic Management Plan, to the likely vehicle movements associated with the 80-150 construction workers (see Section 4.2.2). It estimates 405 daily vehicle trips (including trips to and from the site during the day) and states that throughout the construction programme site working hours will not coincide with commuter peak periods on the highway network. In Section 4.3.1 the Transport Statement compares the predicted number of trips with flows on the M2 and concludes that they will represent a small proportion of overall trip rates i.e. less than 1% of all flows and less than 0.6% of HGV movements. Having regard to small percentage change in traffic flows predicted to arise as a consequence of the development, and NRA guidelines on the percentage change that would trigger impacts, the applicant concludes that the development will have a negligible impact on the National Road Network. Having regard to the conservative approach taken in the assessment, the conclusions seem reasonable.

- 7.4.7. There is no assessment of the likely effects of construction traffic on the R125 and I would acknowledge that this road is a busy one and that there have been accidents along its length, near the appeal site. Further, anticipated vehicle movements over the construction period are quite high. However, I would also note:
 - Traffic flows on this road are high, and the development traffic may not add as significantly to this as the number of predicted vehicle movements initially suggest.
 - The construction phase of the development is relatively short i.e. taking place over 12 weeks.
 - iii. Reasonable measures are proposed to manage vehicle movements at the site entrance and to minimise impacts during peak hours.
 - iv. The planning authority, who is responsible for the maintenance of this network, has not objected to the application.
- 7.4.8. The Board may wish to seek further information on the likely effects of construction traffic on flows on the R125. However, having regard to the above in particular the proposed mitigation measures, I do not consider that the short-term increase in traffic on the R125 during construction will give rise to a significant risk of traffic hazard.
- 7.4.9. During operation, day to day traffic movements are very modest and could be readily accommodated on the R125.
- 7.4.10. The appellant argues that the planning authority should have considered traffic noise, vibration, vehicle generated emissions, lighting glare, dust, non-point pollution and visual impact, in its assessment of traffic effects. However, given the very short duration of the construction phase of the development and the small number of vehicle trips associated with the operational stage of the development, I do not consider that significant effects are likely to arise for the impacts listed, or to warrant further assessment.

Glint and glare

7.4.11. The applicant has carried out a Glint and Glare Study of the proposed development.

I note that this was based on the panels being fixed into position (i.e. they do not track the sun path) and facing southward with a pitch angle of 25 degrees. The

report acknowledges the absence of guidance or policy in Ireland on the assessment of glint and glare effects on aviation, road and rail users or residential buildings. However, it refers to methodologies use in the UK and in America and makes use of an approved (by the Federal Aviation Administrator in America) methodology for measuring ocular impact of solar PV farms on receptors. The report follows the broad approach to glint and glare assessment set out in the SEAI's report (section 5.2.3 – see attachments). The report identifies 131 sample points on the surrounding road network, two airfields and one airport (Dublin) for assessment.

- 7.4.12. Table 2 of the Report presents a summary of the results of the glint and glare analysis. It identifies the <u>potential</u> for glare at a number of locations, including along the M2, for a 1.75km stretch (vehicles travelling north between R8 and R27), along the R125 passing the site (R44, R45 and R46 of the Report) and other local roads (e.g. R89). However, in most cases <u>actual</u> effects are not predicted principally due to the presence of vegetation (see Table 2 of Report). However, it identifies four locations which have the potential to experience glare, principally because screening vegetation is weaker, as follows:
 - M2 Between R8 and R10, where vegetation is weaker, drivers travelling north have the potential to experience glare between 19.21 and 19.52 from end of March to mid-September. However, the report states that from this section of the road there are limited views into the site and views will be fleeting and partial. In addition, it states that any experienced glare would be beyond 50 degrees from the direction of travel and as a result would not cause a hazard/distraction. The report also states that the limited views would be reduced to zero after the implementation of proposed planting.
 - Flyover on local road to the east of the site (R89 on Harlockstown Lane) –
 The report states that drivers travelling north to south have the potential to
 experience glare between 19.21 and 19.49 between late March to midSeptember. However, source of the glare would be at right angles to the
 direction of travel and would not therefore cause a hazard/distraction to the
 driver.
 - Ballyboughal Airfield (private airfield, 12km to the east of the site) The report states that a pilot has a small potential to experience glare if landing between 19.16 and 19.32 for several days towards the end of March and at similar

- times for several days in mid-September. The average daily glare of 1 minute is considered to be negligible and any pilot landing at this time would be dealing with the setting sun in the same direction as the source of glare. The report concludes therefore that the Airfield will not be impacted on negatively by the development.
- 7.4.13. Overall the report concludes that major nuisance or hazardous glare cannot be expected for users of the area surrounding the proposed solar farm. Further, with the proposed mitigation measures, which include native planting maintained to a height of 3-3.5m, it considers that in most cases glare will be removed potentially completely.
- 7.4.14. Having regard to the orientation of the proposed solar farm, the pattern of hedgerows and field boundaries in the vicinity of the site and the relative location of public roads, I would generally accept the findings of the Glint and Glare Study, i.e. that the solar farm will not give rise to significant glint and glare impacts on the public road network near the site (including the R125) or for aviation. I would also consider that, in principle, residual effects could be reduced to zero with additional planting.
- 7.4.15. Notwithstanding this, I am particularly mindful of the location of the proposed development adjoining the M2 and the potentially serious risk posed to motorists arising from any glint or glare from the proposed development, even if such potential exists for only 30 minutes/day. VP 16 (Landscape and Visual Impact Assessment) indicates views from the motorway at this point, with and without the development, at operational stage and + 5 years. It is evident that for a short section along the motorway, the development would be visible. The Glint and Glare Study also identifies the potential for glint and glare from this short section of the road (R8 to R10). In addition, the Government's section 28 guidelines, set out in their Spatial Planning and National Roads Guidelines for Planning Authorities, seek to protect the efficiency, capacity and safety of the national road network (i.e. national primary and secondary roads, including motorways and associated junctions outside of the 50-60kph speed limit zone) and similar policies are set out in the County Development Plan (TRANS POL 28).
- 7.4.16. Mindful of this context, I consider that, in principle, it would be possible to completely screen out views of the appeal site from the M2, through a combination of additional

- planting and, if necessary, on embankment within the appeal site. However, I do not consider that the applicant has provided sufficient details to demonstrate this.
- 7.4.17. I would recommend, therefore, if the Board are minded to grant permission for the development, that (a) prior to the commencement of development, detailed arrangements for additional landscaping at the location at risk of impact from glare are submitted to the planning authority for written agreement, (b) prior to commissioning of the development, all landscaping works shall be completed to screen the site from the view of all motorists, and (c) the efficacy of such works have been adequately demonstrated to the planning authority and TII. This may require the developer to put in place additional planting substantially in advance of commissioning the development i.e. to allow for vegetation to mature to provide robust screening. However, as a 10-year permission is sought, this approach seems reasonable.

7.5. Visual Impact.

- 7.5.1. The appeal site lies within the Wards Lowlands, a lowlands landscape character area in the Meath Landscape Character Assessment. It is considered to have a low value and a low sensitivity to development. The applicant's Landscape and Visual Impact Assessment identifies a wide zone of theoretical visibility and, within this, it identifies particular viewpoints for further assessment. From my inspection of the site and the surrounding road network, it is evident the site is generally well screened, being difficult to see from the east, south and west, primarily due to mature hedgerows and trees within the site and along external boundaries and by similar features, topography and rural development in the wider landscape. The site is most visible from the R125 passing to the north of it, from a short section of the M2 (c.40m) and from Harlockstown Lane as it passes over the motorway to the east of the site.
- 7.5.2. As stated above, I consider that views of the site from the motorway could be addressed by additional boundary planting. Given the elevation of the R125 and Harlockstown Lane as they pass over the motorway, views of the solar farm would remain throughout the lifetime of the development and local impact.

- 7.5.3. With regard to visual impacts on residential amenity, the appeal site is generally removed from nearby residential development, with a small cluster lying near the proposed entrance to the site and one property to the south east of it. Currently, dwellings to the west of the site entrance, and to a lesser extent to the north of the public road, or screened from the site by substantial and mature vegetation (see photographs). Additional planting is also proposed along site boundaries (Site Landscape Plan, H001, March 2017) and if adequately detailed has the potential, with existing vegetation, to prevent most views of the site.
- 7.5.4. For the property to the south east of the site, this is again separated from the site by mature hedgerow/hedgerow trees and direct views at ground level would be limited and further ameliorated by additional planting within the appeal site alongside the shared boundary. Notwithstanding this, I would accept that any views of the existing agricultural landscape would be adversely affected by the development, for its duration. In addition, the Glint and Glare Study identifies this property as one which has the potential to be affected by the proposed development, experiencing glare in the evening between 19.27 and 20.00 during May, June, July and August. However, impacts will be offset at ground level (and to a lesser extent at first floor) by mature vegetation and agricultural buildings separating the house from the site and as the sun will be shining from a similar direction as the glare. Having regard to these factors and the very limited duration of glare, I do not consider that the development would adversely affect the residential amenity of the property.
- 7.5.5. In summary, having regard to the location of the appeal site on lands of low landscape character value and sensitivity, the limited visibility of the site from the surrounding public roads, the small number of residential properties in the immediate vicinity of the site, the presence of substantial vegetation within the site and along site boundaries, and the additional screening that will be achieved by proposed by planting, I do not consider that the proposed development would have a significant impact on the landscape character or visual amenity of the area, or from the residential amenity of properties in vicinity of the site.

7.6. Adequacy of Mitigation Measures.

7.6.1. The appellant argues that the proposed mitigation measures are inadequate to mitigate the effects of the development. Having regard to my conclusions in respect

of the visual impact of the development and my recommendations in respect of landscaping, I consider that the proposed mitigation measures will be adequate to mitigate against the visual effects of the development.

7.7. Impact on Privacy.

7.7.1. The applicant proposes CCTV to provide security across the solar farm site. I would accept that it would be inappropriate for this system to be directed outside of the site. However, this matter could be readily addressed by condition.

7.8. Grid Connection.

- 7.8.1. The applicant states that an application has been made to connect the development to the national grid, but currently that no further information is available on the nature of this. As no information is put forward on the nature of the connection and the Board may wish to seek further information in this regard. Notwithstanding this, any such connection would be subject to a separate application process.
- 7.8.2. I would accept the appellant's arguments that some level of uncertainty exists regarding the implementation of solar farm permissions. However, it is incumbent on the Board to determine the application before it.

7.9. Impact on Birds.

- 7.9.1. Appendix 1 of the applicant's Environmental and Planning Technical Assessment provides an ecological assessment of the proposed development. It identifies the habitats present on site and concludes that these are generally of low conservation value, comprising mostly intensively farmed lands. Birdlife was deemed to be quite sparse, with no protected species occurring or observed within the site.
- 7.9.2. Plans for the development include hedgerow strengthening, new hedgerow planting and a Biodiversity Management Plan for the management of the site during operation of the solar farm to protect and enhance its ecological value e.g. species rich grassland between panels, management regime to maintain species diversity, a two or three year rotation system to ensure that only half or one third of hedgerows are cut in any one year, trimming of hedgerows at the end of the winter period to allow fruit and leaf cover over winter for wildlife, site clearance works outside of the

- breeding bird season, monitoring of construction works and post construction surveys by an ecologist.
- 7.9.3. Having regard to the above, I would not accept that the proposed development would adversely impact on bird species using the site. Rather, with the implementation of the biodiversity management plan, habitats used by birds would be afforded protection and additional habitats to support bird species will be created (species rich grassland).

7.10. Other Matters

- 7.10.1. The appellant raises several other matters which I comment on below:
 - Application documentation There are a small number of minor inconsistencies in the application documentation but none of the matters referred to by the appellant are substantial or of consequence.
 - Flood risk As observed during the site inspection, a number of water courses extend along the perimeter of the agricultural fields within the appeal site and a stream flows south to north across it to join the Broadmeadow River to the east of the site. The OPW's Flood Maps indicate that the site has not been prone to flooding. The development will not significantly increase the area of hard paving on the appeal site i.e. panels will be elevated and angled above ground. Run off rates from the site should change little from existing levels and the risk of downstream flooding seems very unlikely.
 - Clearance from transmission lines The appellant refers to a report on
 Transmission Lines Solar Farm Clearances 2017 which recommends setback
 distances for solar farms from transmission lines. However, the policy
 document is in respect of EirGrid's technical requirements and is not directly
 relevant to the assessment of the planning merits of a proposed
 development.

8.0 Environmental Impact Assessment/Environmental Effects

- 8.1. Solar farms are not listed as a class of development under Part 1 or 2 of Schedule 5 of the Planning and Development Regulations 2001 (as amended) whereby a mandatory EIA would be required, or, therefore, a sub-threshold development, as defined by Article 92 of the Planning and Development Regulations, 2001 (as amended).
- 8.2. Notwithstanding this, the having regard to the characteristics of the proposed development and its location on land which is not environmentally sensitive, as discussed in this report, I do not consider that the development will give rise to significant environmental effects.

9.0 Appropriate Assessment

9.1. Having regard to nature of the proposed development and its distance from nearby European sites (>15km), no Appropriate Assessment issues arise and it is not considered that the proposed development would be likely to have a significant effect individually or in combination with other plans or projects on a European site.

10.0 Recommendation

10.1. Having regard to the above, I recommend that permission be granted for the proposed development subject to conditions.

11.0 Reasons and Considerations

11.1. Having regard to national policy and the provisions of the Meath County Development Plan 2013 – 2019 in respect of renewable energy, the location, nature and scale of the proposed development, including the temporary nature of the proposed development, it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the visual amenities or the landscape character of the area, would not lead to a risk of flooding of adjoining lands, would not seriously injure the residential amenities of nearby dwellings, would be acceptable in terms of traffic safety and would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.0 Conditions

The development shall be carried out and completed in accordance with the plans and particulars lodged with the application as amended by the further plans and particulars submitted on the 13th December 2017 and the 23rd January 2018, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

 Prior to the commencement of development, revised details shall be submitted to the planning authority for written agreement, providing for the relocation of the MV substation in the field adjoining the R125 at the site entrance, to the field to the south of this.

Reason: In the interest of visual amenity.

- 3. i. Prior to the commencement of development, detailed arrangements for the provision of 160m sightlines in both directions at the site entrance to the edge of the public road, from a 3m setback, shall be submitted to the planning authority for written agreement. The access gates to the site shall be located a minimum of 10m from the edge of the public road.
 - ii. Prior to works commencing on site, all works required to achieve the above sightlines/access gates shall be completed.

Reason: In the interest of traffic safety.

4. Prior to the commencement of development, detailed arrangements for planting along all internal and external site boundaries shall be submitted to the planning authority for written agreement. These shall include

arrangements for additional trees and shrubs to the west of the M2 and to the west of the residential property to the south east of the site and a timescale for implementation. Prior to the commissioning of the development, all landscaping works shall be completed to the satisfaction of the planning authority. All planting shall be adequately protected from damage until established. Any plants which die, are removed or become seriously damaged or diseased, within the lifetime of the development, shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interest of residential and visual amenity and traffic safety.

5. Prior to the commissioning of the development, the applicant shall complete a post construction on site glint and glare inspection and survey from local receptors (Map 2a, Solar PV Glint and Glare Study), to the satisfaction of the planning authority and TII. Subsequently, an annual report, and at any time when issues arise, a glint and glare study shall be prepared and submitted to the planning authority. Any remedial works required over the lifetime of the development, including a timescale for implementation, shall be agreed in writing with the planning authority.

Reason: In the interest of traffic safety.

6. The mitigation and monitoring measures outlined in the plans and particulars relating to the proposed development, including the Construction Traffic Management Plan, Landscape and Visual Assessment Plan and Biodiversity Management Plan, shall be implemented in full, and if required, in consultation with statutory agencies. Prior to the commissioning of development, and annually thereafter, a report on the implementation of these measures shall be submitted to the Planning Authority.

Reason: In the interest of nature conservation and public health.

7. Construction and demolition waste shall be managed in accordance with a construction waste and demolition management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to

commencement of development. This plan shall be prepared in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects", published by the Department of the Environment, Heritage and Local Government in July 2006. The plan shall include details of waste to be generated during site clearance and construction phases, and details of the methods and locations to be employed for the prevention, minimisation, recovery and disposal of this material in accordance with the provision of the Waste Management Plan for the Region in which the site is situated.

Reason: In the interest of sustainable waste management.

8. Surface water from the site shall not be permitted to drain onto the adjoining public road.

Reason: In the interest of traffic safety.

9. All structures hereby authorised shall be removed not later than 25 years from the date of commencement of the development, and the site reinstated, in accordance with the Decommissioning Statement, unless planning permission has been granted for their retention for a further period.

Reason: In the interest of orderly development.

10. Each fencing panel shall be erected such that for a minimum of 300mm of its length its bottom edge is no less than 150mm above ground level.

Reason: In the interest of nature conservation.

- 11. The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, 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, and (b) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works.

The assessment shall address the following issues:

- (i) the nature and location of archaeological material on the site, and
- (ii) the impact of the proposed development on such archaeological material.

A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements (including, if necessary, archaeological excavation) prior to commencement of construction works.

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 area and to secure the preservation (in-situ or by record) and protection of any archaeological remains that may exist within the site.

12. 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.

Deirdre MacGabhann Senior Planning Inspector 22nd August 2018