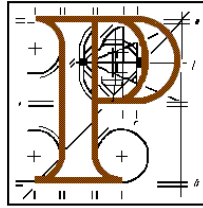


# An Bord Pleanála



## Inspector's Report

**Development:** Solar PV Panel array, consisting of up 33,000 sq. metres of solar panels on ground mounted steel frames and all ancillary site development works at Knockglass and Kilberrihert, Coachford, Co. Cork.

### Planning Application

Planning Authority: Cork County Council

Planning Authority Reg. Ref.: 15/5424

Applicant: Trainman Ltd.

Type of Application: Permission

Planning Authority Decision: Grant Permission

### Planning Appeal

Appellant(s): CA Hill & EA Hill  
David O'Connell & Montserrat Edo

Type of Appeal: Third Parties V Grant

Observers: None

Date of Site Inspection: 25<sup>th</sup> January 2016

**Inspector: Kenneth Moloney**

## **1.0 SITE DESCRIPTION**

The appeal site is located in a remote rural area situated approximately 6.5km north-west of Macroom. The local area is characterised by upland marginal agricultural land and the site itself is essentially a local hill-top.

The appeal site is made up of scrub and gorse at present. The gradient of the site rises gradually from the public road to the south of the site. The highest point of the site is 311 OD and the gradient falls sharply downwards in a northern direction.

There is one entrance currently serving the site and this is situated at the southern end of the site. There is an agricultural shed located immediately east of the appeal site and adjacent to the access track from the southern access.

The road infrastructure in the environs of the appeal site is generally third class rural roads with local access.

There is a 5 turbine wind farm on the adjoining land to the west.

## **2.0 PROPOSED DEVELOPMENT**

The proposed development is for the following;

- 33,000 sq. m. of solar panels on ground mounted steel frames.
- 2 no. electricity control cabins
- 5 no. inverter units
- Underground cable ducts / hard standing area
- Boundary Security fence
- Site entrances
- Access tracks
- CCTV

The proposed solar cells will be erected on ground mounted galvanised steel support structure / frame. The frames are arranged in an east to west pattern and face south to avail of maximum light exposure. The frames ensure that the panels are angled at between 20 to 25 degrees in order to be of maximum efficiency.

The proposal includes two control cabins which will be located at the northern edge of the site. The first control cabin has a floor area of 20 sq. metres and has a height of 3.5m and the second control cabin has a floor area of 36 sq. metres and a height of the 3.5m.

It is proposed that the existing track from the southern entrance to the site will be upgraded. It is proposed to provide an access from the north of the site. The proposed development also includes underground cable ducts and five inverter units. It is proposed that the perimeter fencing will be

2.4m high paladin fencing and that the boundary will also include additional hedging.

It is intended that the proposed development has an operational lifespan of 25 years.

Additional information sought for the following (a) traffic and access arrangements, (b) noise assessment, (c) full details of CCTV, (d) migration for loss for habitat, (e) details of hedgerow planting, and (f) ecology assessment into rare species occurring on the site.

### **3.0 PLANNING AUTHORITY'S DECISION**

The Planning Authority decided to grant planning permission subject to 19 conditions.

- Condition no. 2 states that all structures associated with the proposed development shall be for 25 years from the date of commissioning the development.
- Condition no. 8 sets minimum noise levels from the proposed development at nearby noise sensitive locations.

The remainder of the conditions are standard.

Internal Reports: There are four internal reports on the file:

- Area Engineer's Report; - Additional information sought in relation to road maintenance and access.
- Engineers Report; - It is concluded that the applicant has not fully considered the effect of the construction phase of this development on the local road network. It is recommended that alternative routes are considered.
- Environment Report; - A noise impact assessment on construction and operational phase is required.
- Ecologist; - Additional information sought in relation to mitigation measures for loss of habitat.

Objections: There are two third party objections on the planning file and the issues raised have been noted and considered.

Submissions: There is a submission from Irish Water who has no objections to the proposed development.

### **4.0 PLANNING HISTORY**

- No recent relevant planning history on the subject site.

## **5.0 PLANNING HISTORY for SOLAR FARM DEVELOPMENTS**

- **PL04.244539** (PA Ref. 14/06644) – Permission sought for a solar PV panel array consisting of up to 5400 sq. m. of solar panels on ground mounted steel frames, electricity control room and all associated works at Ballytrasna, Lissarda, Co. Cork. Permission **granted** by Local Authority and An Bord Pleanala on appeal.
- **PL26.244351** (PA Ref. 20140392) – Permission sought for a solar PV panel array consisting of up to 36,959 sq. m. of solar panels on ground mounted steel frames and associated development in Coolroe, Tintern, Co. Wexford. Permission **granted** by Local Authority and An Bord Pleanala on appeal.

## **6.0 DEVELOPMENT PLAN**

The operational development plan is the Cork County Development Plan, 2014 – 2020.

Section 9.4.13 to Section 9.4.18 provides guidance in relation to solar energy. This guidance generally concludes that large scale electricity generating schemes is not generally available in the County due to climatic conditions. However with technological advances these large scale solar energy developments may become practical in Cork.

The following policy objectives are relevant;

- Policy ED 1-1 (Sustainable Development)
- Policy ED 6-1 (Electricity Network)

The appeal site or its immediate environs is not located within a designated 'High Value Landscape'. A designated Scenic Route (S20) is located approximately 1km north of the appeal site.

## **7.0 NATIONAL GUIDELINES**

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

The White Paper is a complete energy policy update, which sets out a framework to guide policy between now and 2030. The vision of the White Paper is to achieve a low carbon energy system that targets greenhouse gas (GHG) emissions from the energy sector that will be reduced by between 80% and 95%, compared to 1990 levels, by 2050, and will fall to zero or below by 2100.

Paragraph 137 of the White Paper 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’.*

#### The National Spatial Strategy 2002 – 2020

*This document states, “in economic development the environment provides a resource base that supports a wide range of activities that include agriculture, forestry, fishing, aqua-culture, mineral use, energy use, industry, services and tourism. For these activities, the aim should be to ensure that the resources are used in sustainable ways that put as much emphasis as possible on their renewability” (page 114).*

### **8.0 INTERNATIONAL GUIDELINES**

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

- This guidance document provides advisory information on planning application considerations including construction and operational works, landscape / visual impact, ecology, historic environment, glint and glare and duration of the planning permission.
- The document also provides guidance on the information which should be provided within a Landscape and Visual Impact Assessment.
- The document also provides guidance on EIA Screening procedures.

### **9.0 GROUNDS OF APPEAL**

**CA Hill and EA Hill** lodged an appeal and the grounds of appeal are summarised as follows:

#### Traffic & Access

- The north-western entrance is not a necessity. The road serving this entrance is unsuitable.
- It is contended that the southern road entrance would adequately cater for the proposed operational service and site visits.
- It is submitted that the applicant, in their submission, has stated that the north-western entrance will be rarely used.
- The road serving the north-western entrance is a Class 3 road.
- It is submitted that the road in question is not maintained.

- The construction traffic will pass through Rusheen village which is a small rural village. The national school in the village is very busy with school drop-offs.
- The alignment of the local roads is poor and the width of the road is narrow.

#### Scale and Expansion

- It is feared that a permitted development will result in a larger development in the future.
- There are concerns in relation to noise pollution and the impact on residential amenities.
- It is contended that proper mitigation needs to be put in place.

#### Health and Safety

- Research suggests that radiation from solar arrays has long term health implications. This includes hyperactivity in which mild symptoms include headaches and restlessness.
- The solar systems use components that radiate radio frequency electromagnetic radiation which causes the symptoms.
- Given the proximity of the proposed development to the appellant's home this is naturally a concern.
- It is feared that explosives will be used as was used in the previous project as the proposed development will be used to draw quarried stone from a local source.

#### Ecology

- It is questionable why solar farms are not required to provide EIS.
- It is submitted that to date it is unknown whether solar farms have significant effects on the environment, either positive or negative.
- It is submitted that wildlife is abundant on the appeal site.
- It is submitted that solar panels contain chemicals which can be catastrophic to the local environment and public health.
- It is submitted that although the planning application contained an Ecology Report, only two site visits were carried out and this is not a fair opportunity to cover all the wildlife adequately.
- It is acknowledged that the area is not conservation designated but the area is of significant ecological value.
- It is submitted the following conservation species are within the area;
  - Hen Harrier (Habitats Directive)
  - Merlin (Habitats Directive)
  - Common Lizard (Wildlife Act)
  - Common Frog (Wildlife Act)
  - Mountain Hare (Habitats Directive)
  - Bat (several species in the area – Habitats Directive)
  - Pygmy Shrew (Wildlife Act)
  - Cuckoo (Amber listed on Birds of Conservation Concern)
  - Redpoll (Amber listed on Birds of Conservation Concern)
  - Snipe (Amber listed on Birds of Conservation Concern)
  - Stonechat (Amber listed on Birds of Conservation Concern)

- Irish Stoat (Habitat Directive)
- It is contended that the Appropriate Assessment Screening and Ecology Report pertaining to the proposed development is very selective.

#### Area of rural beauty

- The proposal is not in keeping with the rural setting.
- A precedent in planning terms is the decision by Cork County Council, L.A. Ref. 05/5842, where a window design was not permitted as it was out of keeping with the rural setting.
- It is questioned whether 30,000 sq. metres of solar panels are in keeping with the rural setting.
- It is contended that brown field sites and factory roofs are now more favourable for solar panels.

#### Water & Drainage

- The road at the north-western entrance is in poor condition and the potential for run-off water will cause further erosion and damage.

#### Regulations / Guidelines

- There are currently no regulations / guidelines for proposed solar farms and in the absence of such guidance and regulation it is considered that the proposed development is premature.

#### Loss of Property Value

- It is contended that property studies indicate that house prices are devalued due to solar and other renewable energy developments.
- It is submitted that properties in the area have already suffered loss of values due to the constructed wind farm.

#### Cumulative Impact

- The proposed development in addition to the wind farm will become cumulative features in the local area.
- There are concerns that the wind effect of the wind turbines will dislodge the solar panels and there will be serious implication for flying debris / panels.
- There are concerns that whistling noises will be audible with wind blowing around the panels and in addition to constant high level of swish from the turbines.
- The current wind farm emits excessive noise.

#### Visual Impact

- The site is visible from 10km away.
- The height and prominence of the panels will adversely impact the landscape and character of the area.
- The local visual beauty will be destroyed.

#### Noise Pollution

- It is contended that solar installations are noisy.

- On sunny days these inverters become noisier as fans that are used to cool the inverters have to work harder.
- The appellant's home is located approximately 800m from the proposed development.
- It is contended that noise will have an adverse impact on residential amenities.
- It is contended that the installation of 30,000 sq. m. of solar panels will create a wind trap and will be enhanced further by the proximity of turbines.
- The appellant's home is in the direct path of prevailing winds from the proposed development.
- It is submitted that proper mitigation needs to be implemented.

#### Safety of Panels located adjacent to Wind Farm

- There are health and safety concerns with the proposed development given its proximity to the established wind farm.
- There are concerns that the wind effect of the wind turbines will dislodge the solar panels and there will be serious implication of flying debris / panels.

#### Non-temporary nature of the installation

- The 25 year life-span cannot be described as temporary.

#### Other Issues

- There has been a lack of public consultation.
- The proposal will have an adverse impact on the appellant's residential amenities
- Emergency services will have difficulty entering the site via the north-west entrance.
- There is a lack of clarity as to the potential plans for lands marked within blue lines of the planning drawings.

**David O'Connell and Montserrat Edo** lodged an appeal and the grounds of appeal are summarised as follows:

- The existing neighbouring wind farm adversely impacts on residential amenities in the area in terms of noise and shadow flicker.
- The strong winds created by the turbines have an adverse impact on walkers in the area.
- There are concerns that should permission be granted that there is potential for the developer to expand in the future as the infrastructure will exist.
- There are concerns with the proposed development in relation to health and safety.
- It is noted that condition no. 2 limits the lifespan of the proposed development. However it is considered that monies should be put in place so that the developer contributes to the decommissioning of the permitted development. The potential exists for the developer to walk away from the development after 25 years without any clean-up.



- It is submitted that a traffic management plan should be put in place so that traffic from the local school / church / GAA grounds and local properties are aware of the dates and timing of planned deliveries.
- It is questioned whether the bond of €50,000, the subject of condition no. 7, is sufficient.
- It is expected that the proposed development will devalue the appellant's home as the proposal will have an adverse impact on the natural beauty of the area.
- There is no planning guidance for solar farms in Ireland.
- In the UK planning guidance appears to consider the nature of the area and the appropriateness of a development.
- It is contended that the habitats of scrub lands and moor land is becoming rarer.
- It is contended that it is not clear how much noise will be audible from the inverters and from wind blowing around the solar panels.
- The existing wind farm can be considerably louder than what the developer had led locals to believe. The noise can depend on the weather conditions.
- It is unclear whether there will be any electrical emissions from the proposed development which can have health implications and also interfere with telecommunications.
- There are concerns that waste materials will be blown around the site. It is submitted that the developer should be made responsible for wind blown debris and it is suggested that a weekly clean-up of the surrounding area should be considered.
- It is submitted that in relation to condition no. 8 and condition no. 11 that the developer is encouraged to carry out weekly dust, noise and vibration monitoring.
- In relation to condition no. 14 it is requested that the developer is required that new hedging planting are those species recommended by the Native Woodland Trust.
- In relation to condition no. 15 it is requested that the developer ensure that the lights are off except for maintenance.
- It is submitted that there is potential for road flooding due to run-off from the development.
- The natural drainage of the land may be disturbed and the roads may end up being flooded rendering the roads unsuitable during wet periods.
- It is contended that planning maps are incomplete in terms of access to and from the site and also in relation to boundaries.
- It is submitted that there are protected birds and bats in the local area.
- Although condition no. 13 is supported it is preferred that the development would not take place.
- It is contended that there are Hen Harriers, Merlin and the Mountain Hare in the local area and these species are protected under the Habitats Directive.
- The Common Lizard is present in the local area and this species is protected under the Wildlife Act.

- There are several species of Bat present in the local area and these are protected under the Habitats Directive.
- There are concerns that noise from the Solar Farm will impact on the appellants property as their house is located due north-west of the proposed development and therefore on the path of the south-west winds.

## **10.0 RESPONSES**

The following is the summary of a response submitted by the applicant's agent;

### Traffic-Related Impacts

- Section 9 of the Planner's Report that accompanied the planning application outlined the proposed transport route and the construction and operational phase traffic.
- During the construction phase material will be delivered to the site by HGV.
- The total HGV movement is 150 over 6 to 9 months and this equates to about 4 to 6 HGV's per week.
- There are also associated vehicular movements for construction staff.
- The type of vehicles used during construction will have no different impacts on the local roads than farming activities or common construction vehicles.
- It is not anticipated that construction vehicles will result in any deterioration of the public roads.
- The full details of the proposed transport route are provided in Section 1.2.2 of the FI response. This includes a turning analysis using AutoCAD.
- Section 1.2.1 of the FI response outlines the intension of the applicant to conduct a road survey of the proposed delivery route before and after works. The applicant will also deposit a bond or similar security with the Local Authority to ensure that any reinstatement works are carried out.
- It is submitted that the Area Engineer is satisfied with the proposed development. The report of the Area Engineer recommends a special contribution of €11,000 to be paid to the Local Authority for any repair of damages to the public road. The Local Authority permission includes conditions in relation to special contribution, road survey and security bond.
- There will be minimal traffic movements to and from the site during the operational phase of development. These vehicles will relate to intermittent routine maintenance of the facility.
- It is noted that condition no. 5 of the Local Authority permission requires a detailed traffic management plan.

### North-Western Entrance

- As stated in Section 9 of the Planner's Report that accompanied the planning application the north-west entrance will only be used during

the operational phase of the proposed development for occasional maintenance.

- This access will provide access to the proposed control cabins located adjacent to the northern boundary of the site.
- The proposed cabins are situated in this location to ensure no shadows on the solar panels.
- The north-west entrance will not be used to draw quarried stone.

#### Surface Water

- There is an established natural drainage system on the site. The natural drainage falls to the south-west and flows into a network of agricultural drains which eventually flow into the Clashavoon Stream.
- The solar panels will be anchored to the ground and therefore no excavations or hard surfaces are required. As such any rain falling on the panels will drain off onto the open ground in the normal way.
- It is contended that run-off water will be the same as the current situation for the site.
- The proposed development includes additional drainage measures that incorporate measures around the site compound such as interceptor drains to collect surface water.
- Section 10.2 of the Planner's Report that accompanied the planning application recommends an upgrade to the existing culverts if deemed necessary.
- The Area Engineer was satisfied with the surface water drainage via existing watercourses and soakpits and deemed the on-site drainage proposals acceptable.

#### Ecology

- The FI response contained a detailed report prepared by Cork Ecology to address ecology concerns.
- This report concluded that the site is not considered to be of significant ecological value in terms of habitats, birds or other wildlife. The proposed site is not a designated site.
- Following the construction of the proposed development there will be an area of at least 21 ha of gorse scrub adjacent to the proposed development. This area will be available to bird and mammal species in the area for foraging and breeding.
- The availability of this area for mitigation measures will address concerns in relation to additional development proposals on the applicant's landholding.
- It is acknowledged that the Heritage Unit has no objections to the proposed development and recommends conditions.
- It is concluded that the proposed development will not give rise to negative ecological impacts.

#### Visual Amenity – Landscape & Visual Amenity

- The proposal is set within lands of gorse and scrubland and the adjacent lands are characterised by improved grazing and forestry.

- The landscape in the wider area is quite mixed including agricultural land and wind turbines.
- The site is not located within a High Value Landscape or a Scenic Route.
- It is accepted that the proposal will result in a visual change from the current use.
- It is contended that the proposed development is set back from the public road and blends in with the existing field patterns and the established varying patchwork of colours and textures.
- It is submitted that the low height of the proposal reduces visual impact.
- It is submitted that the photomontages, that accompanied the application, demonstrated that the proposal will not be obtrusive or visually dominant in the landscape.
- The proposed use is temporary and will be removed in the long-term.
- There is no need for excavations or hard standing.
- It is submitted that the proposed development does not involve the removal of existing field boundaries and hedges and this is consistent with UK's 'Planning Guidance for the development of large scale mounted solar PV systems'.
- It is considered that the proposal will result in the visual integration of the proposal and the landscape will be easily reverted back to its original condition in the post operational stage.
- It is noted that the primary planners report has concluded that the visual impact of the proposal is acceptable.

#### Residential Amenity – Noise

- It is submitted that the noise from the proposed development will have no adverse impacts on residential amenities.
- The FI response contains a full noise assessment.
- No noise impacts arise from the operational impacts of the proposed development.
- It is acknowledged that power current produced by the solar panels requires to be converted from DC to AC. This is achieved through the inverter panels and requires some cooling by means of a fan. However this cooling will only be perceptible by persons standing immediately adjacent to the inverter cabins.
- It is submitted that the planning inspector (in appeal ref. 244351) concluded that there is no credible evidence that noise is an issue with solar panels.
- It is submitted that there is no potential cumulative noise impacts associated with the nearby wind farm.
- The submitted noise assessment concluded that there are no detrimental noise impacts on sensitive receptors in the area.
- The following mitigation measures are proposed during construction (a) limiting hours of site activities, (b) establishing channels of communications between the contractor / developer, residents and local authorities, (c) appointing a site rep with responsibility for noise,

- (d) monitoring typical levels of noise during critical periods at sensitive locations, and (e) maintaining site access roads in a suitable condition.
- The construction of the proposed development will be managed in a Construction Management Plan.
- The Environment Section of the Local Authority has no objections to the proposed development.

#### Privacy

- There will be no permanent staff on the site.
- The proposed development incorporates CCTV as security and in the interest of public safety.
- The proposed CCTV's are in accordance with UK's 'Planning Guidance for the development of large scale mounted solar PV systems'. These cameras are not intended to overlook properties. The cameras will be monitored on a continual basis using infrared lighting as the facility is unlit at night time.
- The proposed maintenance work will be minimal.
- The two closest properties are located approximately 540m north from the site and 360m southeast of the site.
- The planners report did not raise anything with regard to overlooking or negative impacts on privacy of adjacent residents.

#### Property Values

- The appellants have not supported claims of property devaluation associated with the solar panels with any evidence.
- It is contended that the proposal would not significantly impact on property values.

#### Health & Safety

- The claims that electrical emissions from the proposed development which will have health implications have not been substantiated.
- It is submitted that a document entitled 'Clean Energy results – Ground Mounted Solar PV Systems' (Massachusetts: Dept. of Energy Resources, Dept. of Environmental Protection and Clean Energy Centre: December 2012) provides scientific evidence on possible health effects of solar panels.
- The Document states that solar panels produce very low EMF's that deteriorates very quickly over a short distance.
- The document concludes that the highest extremely low frequency EMF found next to an inverter unit at the point of entry to electric conduits was less than that reported for some household devices.
- There are no reasons to believe that there are fire risks associated with the proposed solar panels.

#### Decommissioning

- The applicant is willing to comply with the appellant's request and lodge to the Planning Authority a bond or other security as required to ensure decommissioning is carried out.

- The applicant is also willing to pay a Section 48 contribution in respect of public infrastructure benefiting the proposed development.
- The decommissioning period will last up to two months.

#### Public Consultation

- The planning application has been completed in accordance with the requirements of the Planning Regulations.
- In addition the applicant visited dwellings in the immediate vicinity and provided details of the proposed development.

#### Boundary Demarcation

- The planning application has been prepared in accordance with Article 22 (2) (b) (ii) of the Planning Regulations, 2001.

#### Waste

- In relation to waste the proposed development will be constructed in accordance with a Construction Management Plan.
- This plan will address waste disposal of construction waste.

#### Guidance

- In relation to guidance there is a detailed guidance document UK's 'Planning Guidance for the development of large scale mounted solar PV systems'.
- The general terms of this document are in accordance with the proper planning & sustainable development.

### **11.0 ASSESSMENT**

The main issues to be considered in this case are: -

- Principle of Development
- Impact on Residential Amenity
  - Noise
  - Privacy
  - Property Devaluation
- Glint and Glare
- Landscape / Visual Impact
- Traffic and Access
- Ecology
- Surface Water Drainage
- EIS Screening
- AA Screening
- Condition no. 7
- Other Issues
  - Health & Safety
  - Planning Guidance
  - Construction Practices
  - Planning Maps
  - Public Consultation

## 10.1 Principle of Development

In considering the principle of a proposed solar panel development I would have regard to both national and regional policy provisions and site specific objectives.

I would note that since the publication of the 2009 Renewable Energy Directive (2009/28/EC) that Ireland has a target objective requiring that 16% for all energy comes from renewable sources by 2020. This Directive is enshrined into national policy objectives.

I have referred to the Government White Paper entitled '*Ireland's Transition to a Low Carbon Energy Future 2015 – 2030*', published in December 2015. The main objective of this policy document is to reduce carbon emissions and in this regard solar panel developments are considered an integral part of achieving this objective. The National Spatial Strategy, 2002 – 2020, recognizes the importance of renewable energy as it is stated that the aim should be to ensure that resources such as energy is used in sustainable ways.

In terms of regional policy I would refer the Board to the South West Regional Planning Guidelines, 2010 – 2022. Paragraph 5.6.32 of these Guidelines refers to renewable energy and it is stated that it is an objective to ensure that future strategies and plans for the promotion of renewable energy development and associated infrastructure development in the region will promote the development of renewable energy resources in a sustainable development.

There is currently no national guidance in relation to solar panel developments in Ireland however I would note that the UK Guidelines '*Planning Guidance for the development of large scale mounted solar PV systems*' recommend that when solar panels are located in agricultural land there is a preference to locate them in poorer or more marginal agricultural land as opposed to fertile agricultural land.

The Cork County Development Plan, 2014 – 2020, has no strategy or guidance in relation to larger solar panel developments. However the County Development Plan does acknowledge that with advancing technologies that larger solar panel developments may become feature of the County's' electricity generation. In terms of renewable energy Policy ED 1-1: 'Energy' is relevant to the proposed development. This policy states it is an objective to '*ensure that through sustainable development County Cork fulfils its optimum role in contributing to the diversity and security of energy supply and to harness the potential of the county to assist in meeting renewable energy targets*'.

Generally speaking the objectives of the use zoning in a statutory plan is to serve as a guideline for the control of development so as to achieve the goals set out in this plan. Usually where no specific use zoning is

indicated, the primary use can be assumed to be that already existing in the area. In this particular instance the primary use is agriculture.

Overall I would consider that there is a positive presumption in favour of alternative energy projects including renewable energy and this is acknowledged at National, Regional and County level.

However while such developments may have a positive outcome in terms of national, regional and county objectives I would also consider that locally there are likely to be concerns. Issues such as the visual impact on the landscape taking into account the siting, scale and layout of the proposed solar panel development, impact on local residents and the amenities of the area including noise and glint and glare, environmental issues including impact on the ecology, cultural heritage and accessibility/traffic and drainage issues need to be taken into account.

Overall in conclusion therefore I would consider that there would be a general positive consideration towards solar panel developments in remote rural marginal agricultural land provided that the proposed development would not adversely impact on the established environmental and residential amenities of the local area.

## 10.2 Impact on Residential Amenity

### Noise

The noise impacts from the proposed development are both during the construction and operational phase. I would acknowledge that given the remote rural location that the ambient background noise would be low. As such any new significant noise sources from the proposed development are likely to be audible within a certain distance of the proposed development.

During the construction phase there is likely to be vegetation removal, earth movement, construction activities and movement of HGV's. These activities will all give rise to noise that is likely to be considerably greater than the established background noise in the local area. However the important issue is the impact this noise will have on noise sensitive locations in the local area. I note from a visual observation of the area that there were no houses visible within the immediate area of the appeal site. However Figure 3.1 of the Planning and Environmental Report, which accompanied the planning application, indicated that there is a dwelling to the north of the subject site which is located some 540m from the proposed development and a dwelling situated to the south which is located some 360m south-east of the site. I would consider importantly from a noise perspective neither of these dwellings are located on the path of the south-westerly wind flow which is the predominant wind path in the region.



In terms of noise associated from the construction activities I have reviewed the Noise Assessment submitted by the applicant as part of the further information response. I would consider that this assessment is robust and Table 2.2 illustrates typical construction site noise emission levels. The results of Table 2.2 use BS 5228-1 to predict typical noise levels from construction activities and then these noise levels are calculated at the nearest noise sensitive location (NSL). I would note from Table 2.2 that the highest predicted noise emission at a noise sensitive location is 43 dB and the source is general construction. The Noise Assessment provides no workings or explanation how the predicted noise level arrived at 43 dB from 84dB at a 10m distance from the source.

In general terms noise (or sound pressure level) reduces with distance and noise prediction assessments commonly use the acoustic rule that double the distance results in a 6 dB reduction. It is possible to calculate or at least estimate the Sound Pressure Level (L2) at the noise sensitive location referred to above using the following formulae;

$$L_2 = L_1 - 20 \text{ Log } (r_2 / r_1)$$

L1 = Sound Pressure Level no. 1

L2 = Sound Pressure Level no. 2

R1 = First distance from source

R2 = Second distance from source

$$L_2 = 84 - 20 \text{ Log } (360/ 10) = \boxed{52.8 \text{ dB}}$$

Therefore I have estimated that the loudest construction noise at the nearest noise sensitive location is 52.8 dB on the basis of attenuation of noise over pure distance. However there are other factors at play in sound propagation and most notably wind direction and given the orientation of the property in question to the appeal site this is likely to be a further factor in reducing the audible noise at the NSL. As such I would estimate that noise at the NSL is more likely between 43 dB and 52.8 dB. I would consider that 52.8 dB is generally an acceptable daytime noise level however given the established low background noise in this remote rural environment I would recommend to the Board as a condition, should they favour granting permission, that construction activities are limited between the hours of 7:00am and 7:00pm Monday to Friday.

Overall, based on the information available, and given the distances of the other NSL, i.e. 540m from the proposed development, I would consider that the construction noise, subject to compliance conditions, from the proposed development would be acceptable. The applicant has also indicated that it is anticipated that the construction period will be between 6 and 9 months.

In relation to operational noise the applicant's documentation indicates that there is no significant operating noise. The applicant indicates that there are two noise sources and these would only be heard by persons standing

adjacent to the noise source. These noises include cooling fans associated with the inverter boxes and a transformer in the control cabins. Overall I would consider that operational noise from the proposed development is not a significant issue.

### Privacy

In terms of impacts on privacy I would note Figure 3.1 of the applicant's response submission. Figure 3.1 is an aerial image of the site and its environs and identifies nearby occupied residential properties. This includes a dwelling to the north which is located some 540m from the proposed development and a dwelling situated to the south which is located some 360m south-east of the site. I noted from a visual observation of the area that the site is remote and that the local area is sparsely populated.

I accept that there will be impacts on established amenities during construction period however this will be temporary in nature. The applicant has outlined that during the operational phase there will be no personnel present on site apart from intermittent maintenance. The proposal will also include CCTV cameras. The utilisation of CCTV cameras is an important feature of solar farms in the interest of crime prevention. I would note that the UK Guidelines '*Planning Guidance for the development of large scale mounted solar PV systems*' includes a consultation with the police service who recommend a CCTV system as a defence mechanism. The CCTV system would prevent crime and therefore in my view protect privacy in the general area. It is also important to note that the applicant's response states that the CCTV cameras are not intended to overlook neighbouring properties as their function is to serve the site itself.

I would conclude that the operational phase of the proposed development is essentially self-operational, apart from maintenance visits and therefore I would consider that the proposed development would not significantly impact on the residential privacy in the local area.

### Property Devaluation

I would acknowledge that both appellants argue that the proposed development will devalue their property. However these claims are not substantiated with any evidence or studies. I would consider that the site in question is subject to development potential as is any other site in the local area and there is no basis that proposed development would devalue house values in the local area more so than any other development that maybe permitted on the site.

### 10.3 Glint and Glare

In certain conditions when the sun is low light can be reflected from the solar panels to ground based receptors and this is known as glint and

glare. As such glint and glare can cause nuisance and have an impact on established amenities in the local area.

Glint only occurs when the sun is shining. In general, a fixed receptor will be subjected to glint once per day over two periods per year either side of the summer solstice. The proposed panels are fixed and will not track the sun. However the submitted Planning and Environmental Report states that looking at glint will always be much less severe than looking at the sun. I would note that in the inspectors report (appeal ref. 244539) it was stated that the issue of glare is not particularly relevant to solar panels and this was the same conclusion reached in the submitted Planning and Environmental Report in the current appeal before the Board.

As such I would consider that the significant issue before the Board is whether glint from the proposed development would have any adverse impact on local amenities. In Section 7.1.2 of the submitted Planning and Environmental Report it is outlined that the proposed solar panels are very dark in colour as they are designed to absorb light rather than reflect light. The surface may be further treated with anti-reflective coating to scatter any reflected light rather than cause specular reflections. In addition I would note that vegetation would mitigate against any glint impacts and in general I noted, from a visual observation from the subject site, that looking southwards from the site there is mature vegetation and this would potentially screen any impacts of glint. In addition the undulating nature of the landscape would also screen the impact of glint as viewed from properties to the south.

Overall I would consider that given the low potential occurrence of glint from the proposed development as outlined by the applicant, the sparsely populated local area and the nature of the landscape that the proposed development will not have any significant impacts on the surrounding area in relation to glint and glare.

#### 10.4 Landscape and Visual Impact

The characteristics of the site and environs are worth considering. The site itself is effectively a local hill-top and I note from O.S. Discovery Series (Scale 1:50,000) that the highest elevation of the site is 311 O.D. The wider landscape character is that of undulating countryside.

Although the site itself is not ideally suitable for agriculture as it is comprised of scrub and gorse and is generally marginal agricultural land I would acknowledge that there is established agricultural land, mainly grazing, within close proximity to the subject site. I noted from a visual observation of the area that the site is remote and that the local area is sparsely populated.

The UK Guidelines '*Planning Guidance for the development of large scale mounted solar PV systems*' state that the landscape / visual impacts of a

solar farm are likely to be one of the most significant impacts of such development.

The Cork County Development Plan, 2014 – 2020, sets out designated landscapes and scenic routes within the county. In terms of landscape designation the appeal site nor its environs is not located within a designated 'High Value Landscape'. However there is a designated 'Scenic Route' on a local road situated approximately 1.2 km to the north of the appeal site. *Volume Two 'Heritage and Amenity' of the Cork County Development Plan, 2014 – 2020*, describes this specific Scenic Route, i.e. S20. This view is described in the Plan as '*road at Mushera in the boggeragh Mountains and roads from Mushera to Ballynagre, Lackdoha and Rylane Cross*'. Although the designated Scenic Route is situated relatively close to the appeal site the proposed development would have no adverse impacts given the local topography, i.e. the Burren hill-top which is situated between the proposed development and the Scenic Route and would screen any views from the Scenic Route to the subject site. In addition the proposed solar panels are largely positioned on the southern slopes of the appeal site and orientated away from the Scenic Route situated to the north.

The planning application included photomontages of the proposed development and these photomontages present the visual impact of the solar panels. In general the Planning and Environmental report which accompanied the planning application concludes that the proposed development integrates visually with the established landscape. I would generally concur with this conclusion however I would note that view no. 4 possibly represents the most distinct change. The dimensions of the proposed panels, as illustrated in submitted drawing ref. 0228 – 25, would be raised by 2 metres above ground level and the linear spacing of the proposed panels would make them visible from some distance.

In considering the landscape / visual impact I would note that the The UK Guidelines 'Planning Guidance for the development of large scale mounted solar PV systems' recommend that given the solar panels are temporary in nature permission should not be granted for the removal of hedgerows and field boundaries which would alter the landscape significantly. The proposed development will not involve the removal of any field boundaries however all existing vegetation (heather, bracken and brambles) on the site will be removed. Nonetheless this vegetation is well represented in the local area.

In considering landscape alterations associated with the proposed development I would acknowledge that there is no strategy for solar panels in the Cork County Development Plan, 2014 – 2020. However I would note that within the County Development Plan there is a Wind Energy Strategy Map (Figure 9.3) and the appeal site is located within an area that is designated 'open for consideration' for wind farm development and as such some level of change can be expected to the local landscape.

I would consider that the proposed development would alter the established landscape from a visual perspective, however the established landscape, given the undulating nature, is relatively variable and capable of absorbing change in my view. Therefore in conclusion, it is my view, based on the information available and having regard to the nature of the established landscape and the absence of any landscape designations that the proposed development would not adversely impact on the landscape and visual amenities of the area.

## 10.5 Traffic and Access

The Planning and Environmental Report that accompanied the planning application included a Traffic and Transportation Assessment. I noted that it is anticipated that there will be 150 HGV movements to the site over the 6 – 9 month construction period and that this equates to approximately 4 – 6 HGV's per week. The proposed transport route is indicated in Figure 9.1 of the submitted Planning and Environmental Report.

I would acknowledge that the appellants argue that the alignments of the local roads are generally poor. However I drove the proposed transport route and I would consider that from Macroom to Rusheen Cross Road, and possibly Rockville, that the road network is generally acceptable for the proposed traffic. I would note that this view is also shared by the Area Engineer, in his report dated 10<sup>th</sup> August 2015. The road network north of Rusheen Cross Road is generally third class rural roads and it is from this point to the appeal site where some difficulties may arise in terms of alignment of the public road. The Area Engineer recommended seeking additional information requesting the applicant to consider an alternative route. The further information response outlines the scale of the construction traffic and also includes a delivery route assessment. The delivery route assessment has identified four pinch points and has demonstrated, using AutoCad modeling, that the delivery route is capable of accommodating the proposed delivery vehicles.

I would consider that the limited amount of HGV's, i.e. 4 – 6 a week, would ensure that the traffic generation would generally not cause significant disruption on the local roads. I would also note that the applicant has indicated that they will conduct a road condition survey, with the Council's engineer, prior to the construction of development, and will reinstate any roads damaged caused by the proposed development and is prepared to lodge a cash deposit with the local authority as security. I would note that the Area Engineer is generally satisfied with the additional information response and recommends a special development levy of €11,000 for road maintenance. I would consider, based on the information available, that the applicant has adequately demonstrated that the delivery route would be adequate to accommodate the proposed construction traffic.

I also note the appellants concerns that the entrance to the north-west of the proposed development is unsuitable for an access given the poor quality of the public road. The applicant states that this entrance will not be

used during construction but will only be used during the operational phase which will generally be limited to maintenance visits.

I would consider that the applicant has adequately demonstrated that the traffic generation associated with the proposed development, during both construction and operational phase, would not adversely impact on the established road network.

## 10.6 Ecology

In terms of ecological impacts likely to arise from the proposed development I would note that the applicant has submitted an Ecology Assessment of the proposed development.

The Ecological Assessment based its findings largely on two walkover surveys carried out in January 2015 and April 2015. These walkover site visits included surveys of the habitat, birds and mammals.

In relation to the habitat the site was identified as comprising of scrub and gorse and it was concluded that this habitat is of low ecological value. It is proposed to entirely remove this vegetation to facilitate the construction of the solar panels. The site survey identified eight bird species in the January walkover, the predominate specie being the wren. Five species of bird were identified in the April survey and the most recorded specie was the Meadow Pipit. Apart from the Meadow Pipit specie the birds recorded in the survey are not considered to have any ecological significance. The Meadow Pipit is recoded by BWI (Bird Watch Ireland) as red-listed species (high conservation value). The January survey also identified a flock of 48 Golden Plover flying high over the site but did not attempt to land. Golden Plover are also red-listed on the BWI survey. The walkover site visit also surveyed mammals and it concluded that no mammals of conservation significance were identified.

In terms of assessing the submitted Ecological Assessment I would note that the local authority Ecologist considers the habitat on the site, i.e. scrub and gorse, to be of local ecological significance and considers that the developer should commit to the protection of an equivalent similar area of habitat. The removal of the existing scrub and gorse is, in my view, a significant alteration to the existing landscape and has a direct impact on habitats. However as a mitigation measure the applicant proposes to set-aside 21 ha of scrub and gorse land adjacent to the proposed development which will be used as an alternative habitat to that of the proposed development site. However in response to the additional information request the applicant makes no commitment to setting aside alternative habitat on the basis of the local ecological value of the habitat and does not consider it necessary. I would consider that on the basis that the local habitat has no ecological designation and that there is available alternatives in the area that the impacts on the habitats, i.e. largely scrub and gorse, would be acceptable.

In addition I would consider that the likely impacts on birds and mammals would be acceptable given the availability of alternative habitats in the immediate area. I note that two bird species are identified by BWI as red-list protected and therefore, I would recommend to the Board, should they favour granting permission, that the developer conduct bird monitoring condition surveys to assess the impact of the proposed development on local populations.

I would also note that the appellants have included in their submissions a list of species present on the appeal site. Some of these species, including hen harriers, would have protection status. The applicant, in the further information response, outlines an impact assessment on all the species listed in the appeal submissions. I would note that the applicant has concluded that any of the protected species would not have habitats on the site however it is considered that some of the species of lesser conservation value, i.e. Common Lizard, are possibly present on the subject site. In conclusion applicant's agent recommends a mitigation measure, in the form of a condition, that would limit construction works to outside the breeding season (March to August).

#### 10.7 Surface Water Drainage

There is an established surface water drainage pattern on the subject site and this is described in Section 10.1 of the submitted Planning and Environmental Report. As the site slopes to the south there are existing land drains running along the southwestern boundary of the site. These agricultural drains flow into a network of agricultural drains and eventually flow into the Clashavoon Stream which is located approximately 1.4 km south of the subject site.

The proposed development will result in limited additional hard surface areas. This would include the upgrading of the existing track, which is currently a soft track, a new proposed track to the north of the site and temporary laydown area. I would accept that these developments would increase surface water run-off on the site however given the scale of the hard surface areas in relation to the overall site I would not anticipate that the operational phase of the proposed development would generate any significant additional surface water.

The site construction compound which is located to the north of the site will include surface water drainage measures including interceptor drains to collect surface water and drainage swales to collect potentially silt-laden run-off from hard-standing areas.

I would note that the Area Engineer, in his report dated 10<sup>th</sup> August 2015, considers that surface water drainage proposals are acceptable. I would concur with this conclusion and consider overall, having regard to nature of the development proposed, that the development would not have significant impacts on surface water drainage.

## 10.8 AA Screening

The Department of Environment, Heritage and Local Government Guidelines on 'Appropriate Assessment of Plans and Projects in Ireland, 2009,' recommend that the first step in assessing the likely impact of a plan or project is to conduct an Appropriate Assessment Screening to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone or in combination with other plans or projects, could have significant effects on a Natura 2000 site in view of the site's conservation objectives. The Guidelines recommend that if the effects of the screening process are 'significant, potentially significant, or uncertain' then an appropriate assessment must be undertaken.

The application documentation includes an Appropriate Assessment Screening which confirms that no conservation designation applies to the subject site. Section 2.2 of the Ecology Report outlines a number of conservation designations that are located within a 15km radius of the appeal site. The following is a list of protected sites within 10km radius of the proposed development site;

| Site                                | Code   | Distance       | Conservation Interest  |
|-------------------------------------|--------|----------------|--|
| Mullaghanish to Musheramore Mts SPA | 004162 | 5km north-west | - Hen Harrier  |
| The Gearagh SAC & pNHA              | 000108 | 8km SW         | - Water Courses<br>- Old sessile oak woods<br>- Alluvial Forests<br>- Otter  |
| The Gearagh SPA                     | 004109 | 9km SW         | - Wigeon<br>- Teal<br>- Mallard<br>- Coot  |
| Blackwater River SAC                | 002170 | 12km N         | - Freshwater pearl mussel<br>- White-clawed crayfish<br>- Sea lamprey<br>- Brook lamprey<br>- River lamprey<br>- Twaite shad<br>- Atlantic salmon<br>- Estuaries<br>- Mudflats and sandflats<br>- Perennial vegetation of stony banks<br>- Salicornia<br>- Atlantic sea meadows<br>- Otter<br>- Mediterranean salt meadows |



|  |  |  |  |
|--|--|--|--|
|  |  |  | <ul style="list-style-type: none"> <li>- Killarney fern</li> <li>- Water courses of plain to montane levels</li> <li>- Old sensible oak woods</li> <li>- Alluvial forests</li> </ul> |
|--|--|--|--|

I would acknowledge the conclusions of the AA Screening Report and the report by the Local Authority ecologist that the proposed development is unlikely to have significant effects on any Natura 2000 site as there is effectively no ecological connectivity between the proposed development and the Natura 2000 sites referred to above.

I have examined the potential sources of pollution during both construction and operational phase. I have also reviewed any source-pathway-receptors. In relation to the Gearagh SAC, which is the nearest SAC to the proposed development, I would note that although the Clashavoon Stream which drains the subject site flows into the River Laney there is no connectivity between the River Laney and the Gearagh SAC. Therefore having regard to the limited sources of pollution and the absence of any ecological connectivity from the proposed development to a designated site.

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 any European Site listed above, in view of the sites conservation objectives and a stage 2 AA is not required.

#### 10.9 EIS Screening

Schedule 5 of the Planning and Development Regulations, 2001 (as amended), sets out Annex I and Annex II projects which mandatorily require an EIS. Part 1, Schedule 5 outlines classes of development that require EIS and Part 2, Schedule 5 outlines classes of developments that require EIS but are subject to thresholds.

I have examined the Part 1, Schedule 5 projects and I would not consider that a solar farm is included in any of these project descriptions. I have also examined the Part 2, Schedule 5 projects and although I would note that there are some projects under Paragraph 3 'Energy Projects' which relate to energy production I would consider that none of these projects would be applicable to a solar farm as proposed. In reaching this conclusion I would have regard to the two most recent solar farm developments before the Board, i.e. appeal ref. 244539 and appeal ref. 244351, where a similar conclusion was reached.

In accordance with the '*EIA Guidance for Consent Authorities regarding Sub-threshold Development*', 2003, the following is stated "*there is a requirement to carry EIA where competent/consent authority considers*

*that a development would be likely to have significant effects on the environment*". The guidelines advise the criteria to be considered for the need for sub-threshold E.I.S. and this includes (i) characteristics of the proposed development, (ii) location of the proposed development, and (iii) characteristics of potential impacts.

Schedule 7 of the Planning and Development Regulations, 2001 (as amended), sets out criteria for determining whether a sub-threshold development is likely to have significant effects on the environment and therefore would require an EIS.

However an important issue before considering sub-threshold development is Article 92 of the Planning and Development Regulations, 2001, (as amended). Article 92 defines sub-threshold development, i.e. *'development of a type set out in Schedule 5 which does not exceed a quantity, area or other limit specified in that Schedule in respect of the relevant class of development'*. As I have considered above that the solar panel development is not a development set out in Schedule 5 then I would not consider that the subject development is a 'sub-threshold development' for the purpose of EIS.

However, setting aside Schedule 7 I would note from the documentation on the file that the proposed development is not located within or adjoining a designated Natura 2000 site. I have also noted above in accordance with the provisions of the Cork County Development Plan, 2014 – 2020, that the appeal site is not located within a landscape that is designated for protection, nor will the proposed development impact on a designated Scenic Route.

I would also have regard to the characteristics of the proposed development and also characteristics of the potential impacts and overall I would conclude, based on the information on the file, that the proposed development is not likely to have significant effects on the environment and that an E.I.S. would not be warranted in this case.

#### 10.10 Condition no. 7

One of the appellants questions whether the €50,000 bond the subject of Condition no. 7 is sufficient. I would note that the Bond relates to the final 1.25km stretch of public road to the appeal site along the delivery route. This amounts to approximately €4,000 per 100 metres and I would consider, without any evidence to contrary that this is a reasonable and sufficient bond.

#### 10.11 Other Issues

##### Health Considerations

The main health concern in relation to solar pane is from the inverter, I developments which is a device that takes the electricity from the solar

panels and turns it into alternating current (AC) and puts it out on the electric grid. The inverter generates radio frequency radiation. The wires connected to the inverter acts as antennas, so the radiation may be picked up within close proximity. I have referred to the nearest receptors above and their respective distances from the proposed development and I would consider that these dwellings are located a sufficient distance from the inverters to prevent any health impacts.

### Planning Guidance

It is argued by the appellants that the proposed solar development is premature pending the publication of national guidelines. There is no indication of any national guidelines in the near future and I would acknowledge that planning permission is sought for many types of development without guidelines and this would be no different for the proposed development.

### Construction Practices

I would consider that this is an issue that can be addressed by planning condition that requires the applicant to submit a construction management plan to the local authority.

### Planning Maps & Public Consultation

The applicant has submitted that application in accordance with the requirements of the Planning and Development Regulations, 2001, and I would concur with this conclusion.

## **11 RECOMMENDATION**

I have read the submissions on the file, visited the site, had due regard to the development plan and all other matters arising. I recommend that planning permission be granted for the reasons set out below.

### **REASONS AND CONSIDERATIONS**

Having regard to the provisions of the current development plan for the area and to the regional and national policy objectives, it is considered that, subject to compliance with the conditions set out below, the proposed construction of a solar farm would not seriously injure the visual amenities of the area, the residential amenities of the area, or the ecology of the area. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

### **CONDITIONS**

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended

by the further plans and particulars submitted on the 16th day of October, 2015, 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. (a) All structures including foundations hereby authorised shall be removed not later than 25 years from the date of commencement 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 removal of foundations and access roads to a specific timescale shall be submitted to the planning authority for written agreement. 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, shall be dismantled and removed from the site. The site (including all access roads) shall be restored in accordance with the said plan and all decommissioned structures shall be removed within three months of decommissioning.

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

3. No external artificial lighting shall be installed or operated on site, unless otherwise authorised by a prior grant of planning permission.

**Reason:** In the interest of visual and residential amenity.

4. Prior to the commencement of development the developer shall carry out a road condition survey on public roads L-7476 and L-74761. The results of this survey shall be submitted and agreed with Planning Authority before development commences. Upon commissioning of the development a second road condition survey shall be carried out in the roads in question and submitted to the Planning Authority.

**Reason:** In the interests of maintaining the public road network.

5. Prior to the commencement of development the developer shall lodge a bond, or similar agreed security, with the Planning Authority to the value of €50,000. In the event of the public roads not being reinstated to the initial condition identified in condition no. 4 this bond shall be

drawn down and utilised to carry out repairs as deemed necessary by the Roads Authority.

**Reason:** In the interests of maintaining the public road network.

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

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

7. The solar panels shall be fixed in place by way of driven pile or screw pile foundations only, unless otherwise authorised by a prior grant of planning permission.

**Reason:** In the interest of the long term viability of this agricultural land, and in order to minimise impacts on drainage patterns.

8. All landscaping shall take place in the first planting season upon commencement of development and shall be in accordance with the scheme as submitted to the planning authority by way of further information. 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.

**Reason:** In the interest of the amenities of adjoining properties.

9. 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.

**Reason:** To allow wildlife to continue to have access to and through the site.

- 10.(a) Activities at the site shall not give rise to noise levels off-site, at noise sensitive locations, which exceed the following sound pressure limits (Leq,T):

- Day 50dB(A) $L_{Aeq(30\text{ minutes})}$  (07:00 hours to 19:00 hours).
- Evening 45dB(A) $L_{Aeq(30\text{ minutes})}$  (19:00 hours to 23:00 hours).
- Night 40dB(A) $L_{Aeq(30\text{ minutes})}$  (22:00 hours to 07:00 hours).

Noise levels shall be measured at the noise monitoring locations. Monitoring results shall be submitted to the Planning Authority on a quarterly basis per year.

- (b) There shall be no tonal or impulsive noise at noise sensitive receptors during night-time hours due to activities carried out on site.

**Reason:** To control emissions from the facility and provide for the protection of the environment.

11. 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 noise management measures and off-site disposal of construction/demolition waste.

**Reason:** In the interest of public safety and residential amenity.

12. Site development and building works shall be carried out only between the hours of 0700 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority.

**Reason:** In order to safeguard the residential amenities of property in the vicinity.

13. The developer shall retain the services of a suitably qualified and experienced bird specialist to undertake appropriate annual breeding and wintering bird surveys of this site. Details of the surveys to be undertaken and associated reporting requirements shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. These reports shall be submitted on an agreed date annually for five years, save with the prior written agreement of the planning authority. Copies of the reports shall be sent to the Department of Arts, Heritage and the Gaeltacht.

**Reason:** To ensure appropriate monitoring of the impact of the development on the avifauna of the area.

14. Cables from the solar arrays to the compound shall be located underground.

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

15. 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.

16. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –

(a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,

(b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and

(c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

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

17. 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 upon 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.

18. The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2) (c) of the Planning and Development Act 2000 in respect of works proposed to be carried out, for the provision of ensuring the repair of any damages to the public road network caused by the development. The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board for determination. The contribution shall be paid prior to the commencement of the development or in such phased payments as the planning authority may facilitate and shall be updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office.

**Reason:** It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by

the planning authority which are not covered in the Development Contribution Scheme and which will benefit the proposed development.

19. 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. The contribution shall be paid prior to the 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 the Board to determine the proper application of the terms of the Scheme.

**Reason:** It is a requirement of the Planning and Development Act 2000 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.

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Kenneth Moloney  
Planning Inspector  
11<sup>th</sup> March 2016