An Bord Pleanála

Inspector's Report

ABP-305992-19

Development	10 year permission for the construction of a Solar PV Energy and all associated site development works.
Location	Clonfad, Enniscoffey or Caran, Hightown or Ballyoughter, Lowtown or Balleighter, Pass of Kilbride and Rattin, Co.Westmeath.
Planning Authority	Westmeath County Council
Planning Authority Reg. Ref.	196168
Applicants	JBM Solar Developments Limited
Type of Application	Permission
Planning Authority Decision	Grant Permission
Type of Appeal	Third Party against permission First Party against condition
Appellants	Sharon Griffith Geraldine McDermott & others JBM Solar Developments Limited
Observers	Christopher Brennan Rachel & Henrietta Leech
Date of Site Inspection	8th June 2020
Inspector	Dolores McCague

Contents

1.0 Site Location and Description

1.1.1. The site is located between the M4 and the M6 west of Kinnegad in County Westmeath. The site is made up of a number of separate blocks of land described in the accompanying planning report as Blocks 1 and 2, to either side of the regional road R446, formerly the N6, east of Milltownpass and south of Correllstown. The site comprises lands in the townlands of Clonfad, Enniscoffey or Caran, Hightown or Ballyoughter, Lowtown or Balleighter, Pass of Kilbride and Rattan, and is divided into several discrete sections. These sections are labelled differently in different reports supplied with the application. In the drainage report they are divided into areas A, B and C; area B comprising sub-areas 1.1, 1.2, 1.3 and 1.4. Areas B and C correspond with Block 1 as otherwise described in the documentation and area A corresponds with Block 2. In the archaeological assessment report the site is described as areas A, B and C.

1.1.2. These areas are separated from each other by roads and intervening lands.

1.1.3. To follow the labelling in the planning report the areas are Block 1 north of the R446, divided by multiple local roads and with its main access from the L5008 north of the R446 and via local roads, (mainly the L1007 and the L5008). Block 2 is a single parcel of land south of the R446, accessed directly from the R446.

1.1.4. The village of Milltownpass is located c265m northwest of Block 2. Kinnegad is located c4km east of Block 1 and Mullingar is c9.7km to the north-west.

1.1.5. Two overhead electricity transmission lines cross these lands. The 220kV line crosses the southern block (Block 2) from the south west and the 110kV line crosses the northern block from the north west.

1.1.6. Lands in the area are in agricultural use, mainly as pasture, with strong lines of hedging surrounding medium sized fields. Lands are gently undulating with elevations ranging from 80m to 97m OD. In general lands at higher elevations are more productive. Along some sections,lLocal roads are higher than the adjoining fields, an indication of past turf extraction.

1.1.7. There are areas of one-off housing along roads, particularly towards the north of the site, and some houses have sections of the development to more than one side.

1.1.8. The Board has before it an application made to it directly under Section 182B of the Act (ref 306396), for a substation, to serve the proposed development, on a site towards the north west of Block 1.

2.0 Proposed Development

2.1.1. The application (dated 25th June 2019) is for a 10 year permission for the construction of a utility scale solar energy generation development with a stated generating capacity of 100MW. The Solar PV Energy Development comprises installation, within existing field boundaries, of:

- solar photovoltaic (PV) panels on ground mounted frames/support structures;
- underground cabling and ducting including along the R446, the L1007 and the L5008;
- 40 No. inverter/transformer units;
- 1 No. customer control building;
- 1 No. communications and storage building;
- site perimeter (stock-proof) security fencing (mammal friendly);
- CCTV security cameras;
- new construction site entrance and road crossing point on the L5008 and widening of this local road to the R446, upgraded access points and internal site access tracks comprising crushed stone; section of asphalt road widening along the L5008 north of the R446, to facilitate construction access;
- landscaping including screen planting;
- all associated site development works; and
- 5 temporary construction compounds.

2.1.2. The development comprises two main land areas which will be connected via underground cable along the verge of the R446. No ground levelling is proposed. Existing hedgerows and drainage ditches will be retained, with proposed panels nestled within the existing landscape and enclosed field patterns. Significant additional planting is also proposed to strengthen / infill existing hedgerows.

2.1.3. The development will take place over a 36 week period. Grid connection is proposed via a loop in, from a proposed 110kV substation on site, to the 110kV line that traverses the main development block.

2.1.4. Solar panel arrays will comprise multiple rows of solar panels erected on ground mounted galvanised steel support structures / frames. The proposed solar arrays will be fixed, and no tracking technology will be used. Frames will be a maximum of 3.0 metres above ground level and a ground clearance of at least 0.8m. Rows of panels will be 3-6m apart depending on the final configuration. The angle of tilt, relative to horizontal, is given as up to 30^0.

2.1.5. Each frame table will be supported on galvanized steel posts / frames that will be driven into the ground using a piling machine to a depth of 1.5m to 2m or alternatively, depending on the ground conditions or if pre-construction tests reveal potential archaeology, pre-cast anchors can be used to avoid ground penetration.

2.1.6. Inverter Transformer cabins - the development will include 40 inverter and transformer stations. The transformers, which step up the power received from the solar farm, prior to transmission to the National Grid, will be co-located with the inverters. A typical cabin will measure 6.06m x 2.44m x 2.5m high.

2.1.7. Proposed cabling between the solar PV panels, inverters / transformers and substations is proposed to be primarily buried in trenches within the site at a depth of between approx. 100cm and 150cm depending on site and ESB requirements. A cable is also proposed to run along the verge of the R446 to connect the blocks. Further cable connections between blocks is proposed along the L1007 and the L5008.

2.1.8. A customer control building which will house switchgear and control equipment and a container type structure with a floor area of 15 sq m and a height of 2.9m is proposed for this purpose, on concrete foundation; and a communications and storage container of 15 sq m and a height of 2.9m is proposed, on concrete foundation, are referred to (these are also shown on the associated application 306393 being located within that site).

2.1.9. Security / stock fencing & CCTV - proposed security fencing is 2m high stock proof fencing. A minimum buffer strip of c4.5m between the perimeter fence and field boundaries will be provided to allow access for maintenance purposes, minimise

potential for any damage to the field boundary and provide an access corridor for wildlife. This distance is increased to allow for a buffer of at least 50m between the solar panels and nearby residential properties.

CCTV (closed circuit television) security cameras will be installed on 4m high poles at appropriate intervals around the site perimeter, and directed solely into the solar farm. These will enable remote surveillance, and include both analogue and thermal (infra red) cameras, to allow for night time operation without the use of lighting. The locations are subject to the agreement of the planning authority prior to construction.

2.1.10. Site entrance and access track - there are a number of existing accesses to the site. A new site access junction is proposed from the site onto the L5008 and will serve as the main construction access to the northern development area. The L5008 will be widened over a distance of 130m from the R446, ie. between the access and the regional road and for a distance beyond the entrance. Two further access points will be provided along the L1007, to access construction compounds; and crossing points will be provided on the L5008 to access the eastern part of the site for construction. (The route also crosses the L5009). There will be an access directly from the R446 to access the southern portion. Access tracks c3.5 - 4m width, comprising permeable crushed stone, will be installed to facilitate access.

2.1.11. Temporary construction compound - five temporary construction compounds will be provided within the site and indicative details are shown for the layout of these areas (110.1-110.19) these compounds have a combined indicative area of 28,125sq m and will house temporary site offices and staff facilities, staging areas for incoming deliveries, as well as car parking for construction workers and contractors.

2.1.12. The site area is given as 260ha.

2.1.13. The application (submitted 25/6/2019) was accompanied by the following:

- Cover letter
- Letters of consent from the landowners
- Planning & Environmental Report
- Drainage Report
- A Design and Access Statement

- An Ecological Impact Assessment including an AA screening.
- Landscape & Visual Appraisal
- Traffic & Transport Assessment including outline Construction Traffic Management Plan, visibility splay assessment and swepth path analysis
- Archaeological Assessment Report
- Outline Environmental Management Plan (OEMP)
- Maps and Drawings
- Planning & Environmental Report,

2.1.14. The Planning & Environmental Report includes:

Site selection criteria: free from environmental designations, suitable ground, proximity to grid infrastructure, the proposed OHL is relatively new and has capacity to accommodate a project of this scale; there is sufficient solar resource; and proximity to centres of population with high electricity demand.

Community consultation: including leaflet drop, community consultation event and letter to Local Councillors.

A detailed description of the development, which includes: proposed security fencing around the site boundary: a 2m high stock proof fence. Mammal gates are proposed at 100m intervals (this appears to have been superceded by the proposed 200mm gap under the fence).

Five temporary construction compounds will be provided within the site and indicative details are shown on drawing no's 110.1 – 110.19. During the construction phase all materials will be delivered to the site compound in batches for use on site.

The construction of the solar farm is expected to take approximately 36 weeks to complete. An OCEMP is enclosed with the application and provides provisional details of the construction methods and activities, and will be adhered to by the construction contractor. The final CEMP will be agreed by condition. The proposed solar farm has an expected life of up to 30 years. After this time site decommissioning will commence and the site will be fully restored to agricultural use.

An estimated 95% of a field used for solar development will be accessible for vegetation growth and the site will allow continued grazing during the operational life of the project, thereby retaining the agricultural use of the land.

A summary of Energy Policy and Planning Policy.

Accompanying assessments are referred to, including an agricultural impact assessment, which notes that practices such as sheep grazing can take place with the clearance height of the solar panel edges being a minimum of 0.8m, and that the introduction of species rich grasslands will result in many environmental benefits and all lands can be fully restored to full agricultural production once the solar farm has been decommissioned. The works on site will not affect the agricultural practices on adjoining lands.

The form and scale of development does not require EIA but detailed assessment has been carried out to address the key environmental considerations. The development will be overwhelmingly beneficial in terms of renewable energy production and will deliver a net planning and biodiversity gain.

Appendix C is an EIA screening which includes:

There is no mandatory requirement for EIA: photovoltaic solar energy projects are not specifically listed in either schedule 5 of the Regulations or in Annex II if the EIA Directive.

An Bord Pleanála precedent cases (244539 and 244351) confirm this.

Class 15, schedule 5, of the Regulations states that EIA will be required for sub-threshold development that would, in the view of the planning authority, be likely to have significant effects on the environment having regard to the criteria set out in Schedule 7 and 7A of the Regulations. Article 103 of the Regulations requires that a planning authority shall, in determining whether the development would or would not be likely to have significant effects on the environment, have regard to the criteria set out in Schedule 7 and 7A of the Regulations. Article 103 also requires a planning authority to have regard to the likely significant effects of the development on certain types of ecologically sensitive sites, as provided for under Article 103(2).

The Board's decisions which confirm that access tracks installed for the purpose of solar PV development do not fall within the definition of a road under the Roads Act 1993, and therefore do not qualify as subthreshold development is noted.

Potential impacts on the environment are nevertheless appropriately considered and assessed – attached reports are referenced.

In accordance with Schedule 7A of the Regulations – a screening assessment, responding to each item in the schedule, concludes that no significant effect is likely and therefore that EIAR is not required.

2.1.15. Ecological Impact Assessment

The Ecological Impact Assessment including an AA screening includes:

No ground levelling works are proposed and all drainage ditches and almost all hedgerows will be retained in situ, apart from minor alterations to facilitate access tracks. There will be no emissions to the air, soil or water.

Perimeter fencing around the site boundary is a 2m high stock proof fence, set back at least 5m from field boundaries, this will minimise potential for any damage to the field boundary and provide an access corridor for wildlife. A 200mm high void at the base of the fence will provide access for mammals, including fauna such as fox and badger. The absence of fertilisers and chemical-based substances allows flora and fauna to thrive.

Block 2, at Milltownpass, will be connected to the main block via underground cabling which will run along the road. Further cable connections between blocks is proposed along the L1007 and the L5008.

Figure 1.1a - site location and Natura 2000 sites within 15km, and Figure 1.1b - site location and pNHAs and NHAs within 15km, are presented as small scale coloured aerial photographs. Figure 1.2, which shows the site layout, is more legible.

Table 2.1 presents baseline field assessment details – dates, times and weather conditions and description of surveys – June, July and September 2018, including trail cameras and deployment of passive bat detectors, at locations shown on Figure 2.1; and active bat surveys. Table 3.1 lists the 30 designated sites within 15km of the site, in order of distance, the closest being Milltownpass Bog NHA at 0.26km distance and the second closest being the Royal Canal pNHA at 1.26 km distance.

Hydrological links - A potential pathway via surface water is identified to the River Boyne & River Blackwater, 7.59km distance and 18.4km downstream. There is potential for run-off to either Kinnegad Stream during periods of heavy rain and via the storm water collection system. During construction this could give rise to silt-laden runoff into the Kinnegad Stream.

Disturbance / Displacement of Fauna: the nearest designated site with fauna species of conservation interest (otter) is the Royal Canal pNHA, 1.26km distance. The distance, and screening through vegetation / topography, precludes direct disturbance or displacement of fauna from the Royal Canal pNHA or any other designated site.

Ex-situ disturbance impacts, where highly mobile species from the designated sites may occur at the development site to forage or commute, are considered. Otter are a mobile species, the Kinnegad Stream is not considered to be of ecological significance for this species due to its small size, generally <2m in width, and low fisheries potential. Otter may forage along the watercourses in close proximity to the development area, this species tends to favour larger watercourses. No evidence of other was found.

There are three SPAs within 15km: Lough Ennell SPA, Lough Owel SPA and the River Boyne & River Blackwater SPA. The qualifying species of these SPAs (waterfowl at Lough Ennell SPA and Lough Owel SPA and Kingfisher at the River Boyne & River Blackwater SPA) are dependent on aquatic habitats which are not present at the proposed site. There are no lakes at the proposed site and watercourses are too small to support breeding Kingfisher from the River Boyne & River Blackwater SPA. No ex-situ impacts on species from designated sites are envisaged.

Impact receptor pathway: River Boyne & River Blackwater SAC & SPA – 7.59km overland 18.4km via watercourses, qualifying interests: alkaline fens, alluvial forests, river lamprey, salmon, otter and Kingfisher, are also considered under the heading AA screening.

Habitats & Flora in the existing environment – neutral grassland (higher, local importance), improved agricultural grassland (low, local importance), semi-natural wet grassland (high, local importance), hedgerow (various types, overall high, local value), treeline (low, local importance), conifer woodland (low, local importance),

semi-natural watercourse, eroding upland rivers (high, local importance), drainage ditches (because they are associated with semi-natural hedgerows and or semi natural watercourses: high, local importance), arable crop (low, local importance), tilled land no ecological value, immature woodland (low, local importance), stone walls and other stone works (low, local importance) and buildings and artificial surfaces (no ecological value). These are shown on Figure 3.1, 3.1a and 3.1b - Habitat Map,(small scale).

Protected Flora & Invasive Species – No species protected under the Flora (Protection) Order 2015, listed in Annex II or IV of the Habitats Directive or listed in the Irish Red Data Books, were recorded within the site boundary. There is one record of a rare species, Blue Fleabane, within the 10km grid square that overlaps the proposed development site. This is listed as protected in Northern Ireland but is of least concern in this state. One species, Japanese Knotweed, on schedule 3 of the EU (Birds and Natural Habitats) Regulations (species which it is an offense to disperse, spread or otherwise cause to grow) was found at one location.

Fauna in the existing environment:

Birds – 26 bird species (table 3.3) were noted in walkovers of the solar site in the wider area. Two red listed species of high conservation concern were recorded: Meadow Pipit and Yellowhammer. Meadow Pipit are likely to be associated with wet grassland in the wider area. Yellowhammer are associated with hedgerows and cereal crops in the wider area. The site does not contain habitats of ecological significance for these species. Of the 7 amber listed species recorded in the wider area, Swallow, Skylark and Starling may forage across open pasture. The remaining amber listed species recorded are primarily associated with the hedgerows and treelines along the field boundaries of the site and wider area, which provide foraging and nesting habitats. There are 54 additional species recorded on the national biodiversity data centre (NBDC) database within the 10km grids surrounding the site, including six Annex 1 species: Corncrake (last recorded in 1972), Golden Plover, Kingfisher, Little Egret, Peregrine Falcon and Whooper Swan. There are no habitats of ecological significance for these species on the site. Four additional red listed species have been recorded within the 10km grid: Barn Owl, Curlew, Grey Wagtail and Lapwing. Barn Owl may forage, Grey Wagtail may forage along the Kinnegad Stream but are likely to occur along larger rivers. There is no suitable breeding

habitat (i.e. upland bogs) for Lapwing or Curlew; they may occur on the site during winter, particularly when fields have been tilled.

Terrestrial Mammals recorded: Badger, Fox, Irish Hare and Rabbit were recorded on the solar farm site during walkovers, and Brown Rat and Pine Marten on trail camera. Badger, Fox and Hare are likely to be widespread. A badger sett was found, in the southwestern portion of the main block (block 1). One sett entrance, which appeared new, was recorded in the western face of a drainage ditch. Disused burrows were found at 6 additional locations. Badgers are likely to forage across the entire development site, where suitable habitat (pasture) is available, as evidenced by well used mammal tracks, prints and latrines, as well as by the trail camera study.

Pine marten were recorded in the main block only, north-western and south-western sections, with a scat found during the walkover study and a number of records from the trail camera. They may be associated with the conifer plantation adjacent to the north-western boundary of the main block as well as occurring along the hedgerows and treelines on the site.

An additional 8 terrestrial mammal species have been historically recorded on the NBDC database within the 10km grids surrounding the site, they are: Fallow Deer, Irish Stoat, Otter, Grey Squirrel, Red Squirrel, Hedgehog, American Mink, and Wood Mouse. The watercourses are considered too small to be of ecological significance for otter, although they are likely to forage along them from time to time. There is no woodland on site for Fallow Deer, Grey Squirrel or Red Squirrel, although they may breed in nearby conifer plantation and forage on the site from time to time. The remaining species are likely to occur on the site from time to time, as they forage / commute through the general area, especially along existing hedgerows and in the adjacent forestry habitat.

Mammal species recorded on site or historically, are considered to be of ‘least concern’ in Ireland at present, however the Otter and Red Squirrel are rated as near threatened (internationally).

Bats – one suitable bat roosting structure was identified during the daytime walkover: a small disused house and stone outbuilding located in Block 2. No evidence of roosting bats was found and the active and passive bat survey did not record any evidence of bats roosting. No other suitable bat roosting structures were identified, although there are several mature trees that have some potential to provide

occasional roosting opportunities. Hedgerows and treelines offer suitable foraging and commuting habitat for bats. The agricultural fields are considered to be of low suitability. The passive detector recorded the presence of at least five bat species in the area, two at all four locations: Common Pipistrelle and Leisler's bat. Soprano Pipistrelle was recorded at three locations but not at location 4 in the southwest of the site. There were two registrations of Natterer's Bat at location 3 and several of Daubenton's bat at location 4. There were a number of unidentified calls at location 4 and location 1. Common Pipistrelle was most frequently registered. The active survey night, recorded relatively low levels of bat activity. Common pipistrelle was recorded widely on roads surrounding the site; Leisler's bat was also recorded widely but less frequently; Soprano Pipistrelle less frequently, a handful of records along the R446; and Daubenton's bats were seen and recorded foraging on the Milltownpass Stream southeast of the site.

On the NBDC database within the 10km grids surrounding the site, Brown Long-eared Bat is also recorded but not Leisler's bat (therefore a new record). Leisler's bat is listed as near threatened although the Irish population is stable. All bat species are protected.

Other taxa – four butterfly species of least concern in Ireland were recorded in the solar farm site. Common frog was recorded on the site and is likely to be associated with semi natural wet grassland. There are many historical records of other taxa species on the NBDC database within the 10km grids surrounding the site, one from 1960, Marsh Fritillary, is on the Annex II list. Suitable habitat: the Devils Bit Scabious plant, is not found on the site.

Overall evaluation – the site is currently of low importance, lower to higher level, as it contains some semi-natural habitat and regularly occurring species protected under the Wildlife Acts (1975-2012).

Potential Impacts – construction runoff – best practice measures are adopted to minimise the risk of any impact on local aquatic ecology. Designated sites are 19km downstream and highly unlikely to be affected. No other potential impact / receptor pathways have been identified to designated sites.

There will be no significant effects during operational phase.

Potential Effects on habitats and flora – the habitats are of variable quality with some of high, local value. Improved grassland is the main habitat. Small areas of semi-natural wet grassland and hedgerow will be directly impacted. These are relatively common and widespread in the surrounding area. There are a number of semi-natural watercourses draining the site of high local value. Indirect habitat loss or deterioration of these aquatic habitats has been assessed. Stripping of topsoil to facilitate the laying of access tracks and minor excavation works for cable laying, perimeter earthing loop and inverter / transformer / substation foundations, will be required. The excavation and storage of soil has the potential to cause temporary siltation of watercourses, in the event of prolonged heavy rain where excavated areas and spoil heaps are unprotected or sited in close proximity to watercourses. The earthworks required are minor and excavated soil will be protected and stockpiled in designated areas away from any watercourse.

One stream crossing, Kinnegad Stream, will be required to facilitate access to the north-western portion of Block 1. There is an existing metal bridge at the proposed crossing point and this will be replaced / upgraded with a clear span bridge. There will be no instream works or alterations to any watercourses as a result of the proposed development. In a 'do nothing' scenario the fields would be subject to occasional ploughing, re-seeding, fertiliser and weed spraying; which would represent a much higher and repeated risk than the relatively minor earthworks associated with the proposed development. The potential for siltation / contamination of watercourses as a result of the development is considered low. No indirect habitat loss / deterioration effects through siltation are expected to watercourses and associated designated sites downstream. No ground levelling works are proposed.

All but short sections of existing hedgerows, and all drainage ditches, are to be retained in situ, with proposed panels nestled within the existing landscape. The limited hedgerow removal will be to facilitate access tracks / field connections, and over 2,500m of hedgerow will be planted; with slight positive impact on this habitat type and an increase in local biodiversity, providing foraging, roosting, breeding and commuting opportunities for local fauna.

There will be no emissions to the air, soil or water. The only surfaces where infiltration will be impeded are the inverter / transformer stations and the substation

zone's, control buildings and comms / storage building; c 22,278 m^2 out of c 2,600,000m^2.

Potential effects on fauna – construction – the majority of the solar panels will be located on land that is currently habitat of low, local value. Small livestock farming can be carried out or land left fallow. Fertilisers and chemical-based substances will not be used. Planting of hedgerows and installation of mixed wildflower / wild grass habitat around the site margin will have a slight positive impact on habitats and flora.

No Annex 1 bird species were recorded. The habitats are not considered particularly suitable for any of the Annex 1 bird species know to occur, historically, in the wider area. The habitats of highest value for most bird species are hedgerows and treelines and these will not be significantly affected. Overall effects on birds: neutral to slight positive.

There will be no removal of mature trees or other suitable bat roosting habitat, no effects on roosting bats are expected. The hedgerows and treelines provide suitable foraging habitat for bats and these will be left in situ, except for the removal of 380m, and any loss will be offset by the planting of 2,674m of new hedgerow of native trees / shrubs. Potential effects on bats: neutral to slight positive.

There is potential for construction impacts on fauna. An active badger sett was recorded as well as several inactive badger setts. Construction works associated with the proposed development, particularly movement of heavy machinery, have the potential to cause disturbance to breeding badgers. The layout was re-designed to incorporate an exclusion zone / minimum buffer of 50m from the active badger sett entrance; in addition, exclusion zones of 30m from the inactive badger sett entrances have been used. Construction works outside the exclusion zones will not take place after dark and the site will not be lit at night, (apart from the substation compound, in the event of a fault investigation). This will minimise disturbance to foraging badgers, which are nocturnal. Badger activity will be monitored by a suitably qualified ecologist before and throughout the construction phase. There will be no effects on breeding badgers as a result of construction.

Several other mammal species are likely to occur at the site, at least occasionally, foraging / commuting. These are widespread and abundant and not of high conservation concern in Ireland. There are similar habitats in the surrounding area where temporarily disturbed individuals can take refuge, during construction. The

habitats of highest value for most fauna are hedgerows and treelines along the field boundaries and these will not be significantly affected. Potential effects on fauna: neutral to slight positive during construction.

Operational phase - access to the site area for mammals will be maintained through a 200mm high void at the base of the fence. The solar farm will be unmanned and maintenance requirements are expected to be very low. The development will be unlit. As additional screening and landscape measures mature they will provide additional cover and foraging opportunities. Potential effects on fauna during the operational phase are neutral to slight positive.

Mitigation:

- Designated sites – no bespoke measures; best practice.
- Habitats and flora – no removal of habitats or machinery movement outside the works area; standard environmental controls and commitments are provided in the OCEMP; the landscaping plan will be implemented, only native tree and shrub species suited to the locality will be used; one non-native invasive plant species, Japanese Knotweed, was recorded at one location, pre works walkover will be carried out to ensure that there are no other third schedule invasive plant species. A management plan for the appropriate removal and control of Japanese Knotweed will be drawn up prior to construction and will follow published guidelines.
- Fauna – exclusion zones at active and inactive badger setts will be clearly marked for the duration of construction. All excavations / trenches to be covered at night or a suitable means of escape provided for nocturnal mammals such as Badger; if protected fauna are found actively using the site for breeding / roosting during construction, works will cease and the area will be cordoned off until advice is sought from a suitably qualified / experienced ecologist. If excavations become inundated, they will be checked for the presence of frogs or frog spawn (and translocated under licence); the two line cable interface masts will be fitted with bird flight diverters to minimise risk of collision; pre-works walkover will be carried out to identify the presence of any protected fauna (and cordoned off until advice is sought). Mammal access through the site will be maintained through a 200mm high void at the base of the fence.

Residual effects – no significant residual effects on designated sites, habitats, flora or fauna have been identified as a result of the development. Overall: neutral to slight positive effect on ecology.

2.1.16. Screening Assessment.

This is presented as Appendix A – to the Ecological Assessment and also provided as a separate report. It includes:

An OCEMP for the permitted solar farm includes the substation development; the construction is estimated to take 12 months.

Site Surveys - baseline field assessment details – dates, times and weather conditions and description of surveys – in June, July and September 2018. The information presented is very similar to that in the Ecological Assessment, and reaches the conclusion that it can be objectively concluded that no significant effects arising from the proposed development are likely to occur in relation to the Natura 2000 sites, the River Boyne and River Blackwater SAC, and River Boyne and River Blackwater SPA.

2.1.17. Noise Assessment

The noise impact of the proposed solar farm at Clonfad, Co Westmeath, includes:

The main stages of construction are listed. The principle sources of noise associated with construction are delivery vehicles transporting goods to the site, plant and machinery used on site and the construction activity.

The activities with greatest potential for noise impact are the establishment of foundations for the installation of mounting systems for the PV panels; not significant: less than 60dB(A) at the nearest boundary. Even with many activities occurring simultaneously, noise will not exceed 65dB(A) at the nearest boundary. International best practice dictates that noise limits in the range 65 to 75dB L_{Aeq} are generally acceptable. The noise will be significantly less than routinely applied to TII schemes: are detailed in table 1.

Operational noise – the noise sources considered are inverters and transformers and the substation. Predicted noise level at the closest receptor to the inverters and transformers, will not exceed 38dB(A) at the façade of the receptor, and will be

below the permissible night time limits during day time. The noise sources will not operate at night.

For the substation (the subject of a separate application) there is extensive literature evidence to support a conclusion that noise levels will not exceed the levels that might cause nuisance at night time, provided a buffer distance is maintained between the closest boundary and the substation. A significant buffer distance, of almost 400m, between the substation and the closest residence ensures that the noise levels at the receptor are below 40dB(A) at all times.

The predicted noise levels at the closest noise sensitive locations are below the thresholds at which an adverse impact could be observed.

2.1.18. Glint & Glare Assessment

The Glint & Glare Assessment follows a methodology of: digital terrain modelling (DTM) taking no account of screening by buildings or vegetation, followed by digital surface model (DSM) taking account of screening by buildings or vegetation (based on the screening at the time of data capture), supplemented by Google street view, and ground truthing by site visit. Where instances of glint and glare remain, they determine whether they are likely to cause hazard / nuisance and if necessary mitigate by re-siting the panels and / or provision of additional screening.

The report includes: an assessment of impact at 531 road receptor points (points are taken every 100m) and at 194 dwelling receptors. Table 3 and appendix D set out the results for the road points analysed. Table 2 and appendix C set out the results for the dwellings analysed.

Table 2 sets out, for dwellings, the theoretical reflectance based on DTM (column 1), potential reflectance based on DSM (column 2), and the magnitude of impact (column 3). Of the relatively few houses with potential to experience glint and glare when existing screening and mitigation are taken into account, the magnitude of impact is low very low or none.

Table 3 sets out, for road points, the theoretical reflectance based on DTM (column 1), potential reflectance based on DSM (column 2), and potential reflectance after existing screening and proposed mitigation measures are accounted for (column 3). There are very few instances in the third column. Reflectance could be experienced

along sections of the M6, shown in appendix D as points R446 to R451 and R439 to R459, where the impact is removed with mitigation: added screening. Other road locations are identified where post mitigation there will be some residual impact.

An Aviation Assessment based on SGHAT (Solar Glare Hazard Analysis Tool) was carried out for Taggart Airstrip, which is located 7.8km east of section D. The methodology is set out in section 1.1.5; and the results, set out in appendix G, confirm that there will be no impact on the airstrip.

2.1.19. The Transport Assessment includes:

The scoping request to Westmeath County Council and response; a description of the roads and traffic issues of the site and surrounding area and a summary of traffic and speed survey results; roads and traffic characteristics of the proposed development during construction and operational stages; a road safety audit; and policy summary.

The development is broken up into five main sites with four to the north of the R446 and the other to the south. The four to the north are currently accessed via local roads. That to the south is accessed directly from the R446.

The R446, L5008, L1007 and unnamed local roads are described, and survey data outlined.

The objective of the site access strategy is to reduce the proposed development's construction traffic impacts by limiting the amount of narrow local roads that need to be traversed by HGV's.

It is proposed that the main access to the development site be primarily accommodated via a new access junction onto the L5008, during the construction phase. This will result in the vast majority of construction traffic utilising only 115m of local road L5008 to access the site. It is proposed to widen 130m of the L5008 including 15m to the north of the site access, to accommodate efficient two-way HGV movements and safe passage of background traffic along that road.

Adjacent development sites to the north of the R446, within the overall site, will be accessed internally with road crossings used where necessary and feasible, to minimise the length of haul routes utilising local roads. Access to the south of the R446 would be accommodated via an existing direct access.

The access arrangements north of the R446 is shown in Figure 3.2.

Construction vehicles will be able to unload materials at the main compound / delivery area, turn around and exit along the site access road. Additional, smaller temporary construction compounds will be located at the northern and eastern sites to accommodate construction of each respective site, with materials transited from the main construction compound via smaller vehicles, as required.

Two new additional road crossing points will be provided in order to allow access to the eastern parts of the site without travelling along additional local roads.

Preliminary design layout drawings for the L5008 and its junction with the R446, the L5008 / main site access junction and the two additional crossing points, have been prepared and accompany the application; and extracts are included in the report.

Operational phase site access and layout arrangements: following completion of construction, the site layout will be revised and will include the removal of temporary construction compounds. Internal roads will be retained to provide maintenance access for solar panels and access to the substation. Use of site accesses will be de-intensified due to the limited volumes of traffic accessing and egressing the site.

A 36 week construction programme is envisaged. A maximum of 26 inbound and 26 outbound daily HGV trips is anticipated, including staff bus. Although the majority of staff (80) will travel to the site by bus, the remaining staff (40) will access the site by private car. Table 5.4 sets out average and peak trips. Operational phase traffic volumes will be very low.

Traffic during the construction phase: the peak construction period will have a short duration of 2 weeks. Traffic increase will be greatest along the 115m of L5008 which is subject to upgrade. The capacity of the R446 and L5008, based on the TII Publication: Rural Road Link Design (DN GEO – 03031) is estimated to be 8,600 and 5,000 AADT. With a background traffic of 1,442 and 196 AADT, the forecast construction traffic of 131-132 at maximum HGV trips weekly trips during weeks 15 - 16 and 67 two way HGV trips (12 two way daily) on average, is substantially below capacity. Relevant traffic management mitigation measures have been developed to ensure that construction works do not adversely impact on local roads. No residual construction phase traffic impacts are envisaged.

HGV construction traffic generation is set out in table 7.1. Deliveries will be spread through the 36 week programme and will, insofar as possible, be scheduled to minimise the extent to which various stages overlap. Construction traffic will travel via the national and regional road network and the L5008. Given the low background traffic, traffic impacts on the local road network will be minimal.

Mitigation:

- The contractor will engage with local residents.
- A construction signage plan will be developed and implemented.
- Temporary speed limits will be agreed with WCC in advance of construction works.
- A banksman will assist with the efficient and safe access and egress to / from the L5008 and at the southern site access junction with R446. Further banksmen will be located within the northern and southern sites, close to temporary construction compounds, to supervise internal movements.
- Deliveries will be spread throughout the day utilising a booking system.
- The proposed haul route will be communicated to all drivers.
- All deliveries will be accommodated in designated delivery areas. 3 staff buses will be provided to minimise traffic on local road network.
- Staff and visitor car parking will be accommodated in a designated on-site car parking area. Internal roads and circulation areas will have a compacted gravel or equivalent base.
- Prior to the construction of internal roads, vehicles exiting will be subject to a power wash to remove excess dirt, and the L5008 and R446 at the southern site will be cleaned as required.

A construction traffic management plan (CTMP) will be adopted.

Attached as appendix F to the report is a Stage 1 Road Safety Audit.

2.1.20. The Landscape & Visual Impact Assessment includes:

The criteria for assessing landscape impact are set out. Significance of impact is based on a balance between the sensitivity of the landscape receptor and the magnitude of the impact. The matrix for assessing significance is given in table 1.3.

The criteria for assessing visual impact are set out, based on the sensitivity of receptors. Significance of impact is a function of receptor sensitivity and visual impact magnitude.

The area is within area 10 of the landscape character areas in the Westmeath County Development Plan 2014 – 2020: Lough Ennell and South Eastern Corridor. None of the 50 protected views in the county are within 10km of the site.

The landscape setting is described. It is a highly modified and managed rural landscape. Agricultural uses vary with the quality of lands and size of field. Hedgerows vary enormously, altering from thick and tall, with deep ditches, to small and scant, while others have intermittent trees with little or no under-storey. Thus, the scale of visual absorption alters, changing from open views stretching to several hundred metres, to those abruptly foreshortened by tall trees and bushes within the verdant patchwork of small medium sized fields. Overall, while vegetation is plentiful throughout, there is a very small amount of natural or native woodland found within the study area.

A computer generated zone of theoretical visibility (ZTV) is described, and the theoretical visibility is shown on map in Figure 11. A Digital Surface Model visibility, shown in figure 12, accounts for the existing vegetation. Mitigation and restoration measures: the siting of the proposed solar farm in a robust and well-contained rural area, that also avails of both terrain and hedgerow screening, such that the scheme will not be prominent within the surrounding landscape, is the main mitigation. Retention of all existing hedgerow boundaries around the site also aids visual screening, and maintains the existing field pattern. In addition, all existing internal hedgerows will be allowed to grow out to a height not exceeding 4m. In this respect the proposed solar farm is not perceived to impose itself on the existing landscape pattern.

It is proposed to bolster selected existing perimeter hedgerows, where necessary, with under-planting and inter-planting of whip transplants, as well as more advanced nursery stock to fill gaps (type 1 planting), in order to ensure dense and consistent

screening of the site in perpetuity. Whip species will be selected to complement the existing broadleaf hedgerow species mix around the site and will be of local provenance. This planting is primarily used along perimeter hedgerows where there is strongest potential for views of the proposed development from key receptors. In selected locations, where existing perimeter site boundary contains either a negligible or low degree of existing planting, and where there is likely to be visibility of the proposed development from key receptors such as roads and / or local residences, a thick native hedgerow will be planted (type 2) to prevent long-term views of the proposed panels and /or substation. In other locations, where the existing perimeter site boundary contains either a negligible or low degree of existing planting, but there is unlikely to be visibility of the proposed development from key receptors, less mature native hedgerow species will be planted (type 3) to prevent long-term views of the proposed panels. Type 3 hedgerow consists of a triple staggered row of feathered whips (75%) and holly transplants of local provenance at 600mm x 600mm spacing.

Post mitigation establishment visibility is shown on map in Figure 16.

Restoration will involve removal of all solar panels and associated fencing etc.

Viewshed reference points are described and assessed, as shown in the photomontages, at locations shown on figure 17.

The magnitude of landscape impact is set out in 1.5.1. The landscape sensitivity is considered medium-low; and the impact, medium; with an overall significance of no greater than moderate-slight and slight, within 500m; and imperceptible within the rest of the 5km study area.

Visual impact is set out in 1.5.2 for each viewpoint analysed. Photomontages are provided from 13 viewpoints. In some cases a post mitigation situation is also considered. The description in each case includes a summary table which sets out visual receptor sensitivity, visual impact magnitude and significance of visual impact, which is a product of the other two. Where mitigation is proposed these assessments include for pre and post mitigation. The significance of visual impact is predominantly slight-imperceptible to imperceptible. In three instances the initial significance is moderate and post mitigation reduces to slight, or slight-imperceptible.

Overall significance: it is not considered to give rise to any significant residual impacts. It is very well screened or otherwise assimilated within the prevailing landscape pattern.

2.1.21. The Drainage Report includes:

The main watercourses in the area are the Milltownpass and Kinnegad Rivers. The Milltownpass River rises in the west of site A (i.e. Block 2) and flows along its western boundary in a south easterly direction eventually meeting the Castlejordan River. The Kinnegad River rises north of sites B and C (i.e. Block 1), and flows along the eastern boundary and then east eventually joining the River Boyne. Two unnamed tributaries of the Kinnegad River flow through sites B and C in a southerly direction. The rivers and streams are predominantly open channel.

Drainage ditches are present along many field boundaries of the three sites. They are relatively wide with steep banks, clear channels, and are well maintained. In many cases the drainage ditches convey the flows along the site boundaries.

The topography varies throughout the site and so the fields drain in various directions to the drainage ditches along the field boundaries.

Site A: 51.86ha, two localised high points towards the north; fall is to south east.

Site B:181.846ha, various localised high points and low points; generally fall is to south. There is potential for surface water ponding at the localised low points during extreme rainfall events.

Site C: 26.3ha, two high points, one at the north east and another at the north west; fall is towards the south.

It is important that the development does not increase run-off from site and thereby increase the risks of flooding for others. There may be risks associated with soil compaction or degradation during construction or brought about by the rain-shadows under the panels. Mitigation measures are proposed:

- Promote long grass conditions underneath the solar panels with native meadow grass and wild flowers / longer meadow type grasses.

- Following installation of the panels, the site is chisel ploughed or similarly cultivated and seeded with native meadow grass and wild flowers. Chisel ploughing will reduce soil compaction and promote seed growth. Longer meadow type grasses

and wild flower vegetation provide high levels of natural attenuation which will serve to reduce the risks of erosion and limit surface water flows across the site.

- A soil management plan is put in place to keep the soil in good condition during the operational phase and for any decommissioning.

Farming activities can considerably increase the rate of water runoff from a site and have the potential to increase downstream flood risk, in terms of water flow rates and silt production. The absence of more intensive farming activity will reduce soil compaction, allowing soils to become naturally aerated over time, this should improve the soils water acceptance potential and reduce runoff rates.

The drainage strategy for the site is:

- Provision of interception trenches at any vulnerable boundaries where the site slopes towards neighbouring developments to prevent cross boundary flows. Although the volume of run-off should be no larger than greenfield site, the interception trenches will provide a cut-off measure for any overland and or exceedance flows and redirect them to the nearest watercourse and away from any one-off dwellings, refer to drawing no's 2018s 1279-001 to 2018s 1279-005 for typical details.

- Provision of interception trench to the north and west boundaries of the proposed substation. Increased overland flow is not expected from the substation area as it will not be paved with an impermeable material. Instead, a gravel surface will be provided allowing surface water to penetrate to the soil below. The purpose of the infiltration trench is to prevent any existing overland flows from the elevated area to the north from entering the substation area; drawing no 2018s 1279-003.

- Post development, undertake chisel ploughing between solar panel rows to loosen the soil that will be compaced during construction.

- Access roads will be constructed of stone/gravel; surface water can infiltrate similar to groundfield.

- Provision of meadow type grasses and wild flower vegetation to provide high levels of natural attenuation which will serve to reduce the risks of erosion and limit surface water flows across the site.

Given the rural environment and the flood risk assessment there is no requirement to attenuate overland flows during exceedance rainfall events. The ground remains in-situ to absorb rainfall. A recent research paper on the hydrologic response to solar farms (attached as appendix A to the report) is quoted as concluding that modelling showed that the solar parks themselves did not have a significant effect on the runoff volumes, peaks or times to peak.

The report concludes that the surface water measures provide sufficient flood mitigation measures to facilitate the proposed development and will enhance the overall drainage regime in the immediate area.

Appendix A, attached to the report, is a research paper titled 'Hydrological Response of Solar Farms', which includes: 'if ground cover under the panels is gravel or bare ground, owing to design decision or lack of maintenance, the peak discharge may increase significantly with storm-water management needed. In addition, the kinetic energy of the flow that drains from the panels was found to be greater than that of the rainfall, which could cause erosion at the base of the panels'. It recommends that the grass beneath the panels be well maintained or that a buffer strip be placed after the most downgradient row of panels.

2.1.22. The Flood Risk Assessment includes:

The development spans across three sites as identified on Figure 2.1, which also identifies the hydrological environment; similarly on Figure 2.2, 2.3 and 2.4.

The main watercourses affecting the sites are the Kinnegad and Milltownpass Rivers. The Kinnegad River rises north of Sites 1 & 2, flows south along the eastern boundary of Site 2, and then east, eventually joining the Boyne. The Milltownpass River rises in the west of Site 3 and flows along its western boundary in a south easterly direction eventually meeting the Castlejordan River. Drainage ditches are present along many field boundaries. They are wide, with steep banks, clear channels and are well maintained.

The subsoils (GSI figure 2.7) consist of limestone gravels, esker sands and gravels and cut over raised peat; overlying limestone with groundwater of moderate vulnerability (water table depth greater than 10m). The risk of groundwater flooding is low. Floodmaps.ie have no recorded flood event; the nearest is in Kinnegad town 4km away.

The PFRA identifies indicative fluvial risk, shown in Figure 3.2. All three areas are at risk from fluvial flooding. Part of each site is within Flood Zone A and B.

A hydraulic model of the watercourses in the area was developed.

Based on the OPW PFRA map, specific areas within site 1 and 2 are at risk of pluvial flooding in localised depressions.

The risk of groundwater flooding is low. There is no risk of coastal flooding.

The catchment characteristics for each of the 3 sites are set out in table 4.1.

Fluvial flood risk modelling was carried out for catchments, shown in Figure 4.1, using three methods:

- The Flood Studies Report Rainfall-Run Off Method (FRS RR)
- Flood Studies Update (FSU)
- Institute of Hydrology Report no. 124 (IH 124).

Tables 4.2, 4.3 and 4.4 give calculations for each method, using climate change of 20% (based on Medium Range Forecast Scenario, MRFS). Tables 4.2 gives estimated results from the FRS RR method. Table 4.3 gives estimated results from the FSU method. Table 4.4 gives estimated results from the IH 124 method. It was considered that the FSU method produced the most realistic flow values, given the catchment characteristics, for sites 2 & 3. The FSU method is based on comprehensive catchment attributes which also includes allowance for arterial drainage. The arterial drainage descriptors for sites 2 & 3 are relatively large. For the critical flood events the 1% AEP and 0.1% MRFS AEP are higher in the FSU estimate. The IH 124 method results were discounted as the results are considerably lower than the FSU and the FRS RR for all the site areas.

For site 1 the FSU (small catchments) and FRS RR produce similar results, however the FRS RR produces slightly higher 1% and 0.1% AEP peak flow and the FRS RR has been applied to site 1.

The modelling stages are set out in section 5 of the assessment.

Flood extents for the 1% AEP and 0.1% AEP are shown in Figure 5.2, for site 2, which shows localised inundation across the site, predominantly in close proximity to the stream channel, with depths during the 1% AEP event generally <500mm.

Flood extents for the 1% AEP and 0.1% AEP are shown in Figure 5.3, for site 3. The identified flood risk is presented by a stream which runs along the site's western boundary. Predominantly the inundation occurs in close proximity to the stream channel, however there is notable inundation with flowpaths across the site, with depths during the 1% AEP event generally <500mm.

Residual risks – additional scenarios identified as culvert or bridge blockage and climate change were run. A number of bridge structures are located along the watercourse for each site. Blockage scenarios show limited localised increases in inundation around the bridge structures.

The risk of individual panels detaching from the supporting framework is considered extremely low.

Regarding climate change the 1% AEP flood flows have been increased under the MRFS by 20%. The resulting flood levels informed the application of mitigation measures onsite.

Site 1 has downstream residential properties which are located adjacent to a culvert system. A 66% blockage scenario was developed; no increased risk of inundation was found. No increase of inundation was found for climate change. Figure 5.4 refers.

Site 2 – there are 2 main watercourses that cross 2 roadways. A 66% blockage scenario was developed. There is a minor increase in flood extent at culverts 1a and 2b and a noticeable increase from culverts 1b and 2a. No increase of inundation was found for climate change. Figure 5.5 refers.

Site 3 – a single culvert is located 670m downstream, below the M6. A 66% blockage scenario was developed. There is a minor increase in flood extent upstream of the culvert, but none within the development site. No increase of inundation was found for climate change. Figure 5.6 refers.

Flood risk assessment and mitigation

Solar farms are water compatible and suitable in Flood Zone A. Measures are proposed to minimise the fluvial and pluvial flood risk to the development. There is scope to raise the panels above the standard height of 0.8m. It is recommended that in Flood Zone A the panels be raised above the 1% AEP MRFS flood level and above the 0.1% AEP flood level, including a provision for freeboard: 400mm

minimum on the 1% AEP plus climate change, or 100mm above the 0.1% AEP flood levels and residual risk events. Any sections of the site with flood depths greater than 400mm during the 1% AEP MRFS flood level and 700mm during the 0.1% AEP flood level, will require an increase in the standard height of 0.8m.

Site 1 – maximum flood depths modelled are 250mm and 500mm for the 1% AEP MRFS event and the 0.1% AEP event. There are no restrictions regarding placement of solar panels. Critical infrastructure such as substations need to be located in Flood Zone C; Figure 5.1 refers.

Site 2 – significant overland flows are noted for all flood events but particularly the 0.1% AEP and blocking scenarios, Figure 6.1 refers. Mitigation - a freeboard of 400mm is required for the 1% AEP MRFS and 700mm for the 0.1% AEP and residual risk events. Figure 6.1 indicates minimum panel heights required. A panel height of 1.1m will ensure sufficient protection where additional height is required. All infrastructure should be located outside flood zones shown.

The substation is located in Flood Zone C.

Site 3 is not at risk of flooding for the 1% AEP MRFS event. Inundation in the 0.1% AEP is 350mm, which provides a freeboard of 450mm for the minimum panel height of 800mm. The only restriction on site 3 is for critical infrastructure to be located in Flood Zone C.

Risk of pluvial flooding / surface water design – shown across the site along localised depressions. The standard ground clearance of 0.8m is sufficient. Critical infrastructure should be located outside flood zones.

The proposed development will not increase the risk of flooding elsewhere in the catchment.

Residual risk

The residual risk which is considered, is combined culvert blockage and climate change. Monitoring will be undertaken as part of regular security and maintenance tasks, to include visual inspection of the river channels and particularly at any inline culvert structures, and any debris removed. A fence will be erected around the perimeter and boundary with open watercourses, which will help retain any debris or loose panels.

Site 1 – Figure 5.4: the downstream culvert is close to residential properties. A slight increase in flood levels of c60mm is noted; not presenting a flood risk.

Site 2 – blockage of culverts 1A and 2B gives no increase in flood risk to any receptors downstream. A notable increase in flood extents follow blockage of culverts 1B and 2A. For culvert 1B, this is shown in Figure 6.4, affecting only agricultural land. For culvert 2A, this is shown in Figure 6.5, as an increase in extent and depth, affecting agricultural land.

Site 3 – Figure 5.6: no increased risk from climate change; no modelled inundation during the 1% MRFS flood. The blockage causes overtopping of the culvert but neither the site nor downstream receptors are at risk.

The flood risk assessment confirms that the development is an appropriate development at this location.

2.1.23. The Archaeological Assessment Report includes:

The site is put in a prehistoric and historic context based on desk survey, including historic mapping and aerial photography. There are two recorded monuments within the development area. In block A (the blocks are identified in figure 2), as well as an enclosure and a ringfort (WM027-049/51), a review of the aerial photography identified five potential archaeological features located close to the two recorded monuments and in Block C a potential circular feature. Because of the extensive ploughing and cultivation in the area. There is also a possibility that previously unknown archaeological sites, with no surface expression, remain present. A field inspection of the proposed development confirmed the presence of the recorded monument in Block A and identified a sub-ovular hill of possible archaeological potential, and the trace remains of vernacular structures within block B. No other features of archaeological potential were noted.

Mitigation: Direct impacts from the insertion of solar panels can be avoided through non-invasive techniques such as the use of concrete boots.

It is recommended that the location of the solar panels and all associated enabling infrastructural works avoid the location of the recorded monuments and a zone of at least 30m from the edge of any upstanding remains.

A programme of geophysical survey should be carried out in the fields containing the recorded monuments and potential features identified on aerial photography, to establish the nature and extent of the potential archaeological features.

Archaeological testing should also be carried out in these areas and also at the sub-ovular hill, to establish if it is of archaeological significance. If any features of archaeological potential are discovered during the course of the works, further archaeological mitigation may be required, such as preservation in-situ or by record.

It is recommended that all ground disturbances associated with the proposed development be monitored by a suitably qualified archaeologist. If any features of archaeological potential are discovered during the course of the works further archaeological mitigation may be required, such as preservation in-situ or by record. Any further mitigation will require approval from the National Monuments Service of the DoCHG.

2.1.24. The Agricultural Impact Assessment includes:

An Agricultural Impact Assessment accompanied the application, it includes:

The area consists of mainly pasture with some arable lands intermixed.

The development will not have an any adverse effect on adjacent farmlands from a production point of view.

Drainage is adequate.

Hedges and trees will be retained.

Roads and access tracks will comprise crushed gravel, save for a small stretch of road widening, and the substation access track, (which will be subject to separate application).

Works will not affect neighbouring farms.

Soils are a mixture of:

- fine loamy drift with limestones,
- coarse loamy drift with limestones, and
- peat.

A small portion is fine or coarse loamy drift limestones which indicates high potential for agricultural production. The majority is peat which indicates a lower potential for agricultural production.

CSO figures indicate specialist beef production, average farm size 37ha (above average) and high production output. There is high potential for both grassland and arable production: mainly cattle, some sheep and some arable.

Overall agricultural output will be reduced over the lifetime of the project. Dual use will allow farming extensively: sheep grazing, free range poultry, bee keeping and windflower cultivation.

The existing grassland swards will become species rich and will support a greater biodiversity mix.

Following the 30 year lifespan, the lands will be returned to prime production. A nutrient management plan could be put in place to return the lands to full production levels; or retaining species rich grassland, they could avail of the GLAS scheme.

2.1.25. Outline Environmental Management Plan (OEMP), includes:

This describes the enabling works, identifies the environmental considerations associated with those activities and outlines proposed work practices, management, mitigation and monitoring strategies to ensure that the project is in accordance with best practice, and that there is minimum impact on the surrounding environment and maximum safety throughout the construction works. It will be issued to a contractor, on appointment, to be further developed.

There are two main elements:

- Construction of the development, programme and working hours.
- Environmental management system.

Traffic management is a separate document.

Construction stages are listed as: temporary signage; tree protection; permanent fencing; foundations for the substation; earthworks – laying down surfaces for access, cable trenches and where necessary swales; erection of mounting system, frame assembly and fixing of PV modules; cabling; installation of inverters/transformers; and metering station / commissioning – installation of equipment, and measuring equipment, testing and sign off, prior to the ESB completing the connection to the national grid. Table 1 sets out the construction stages, including the erection of CCTV and other security measures, together with the time requirement.

Five temporary construction compounds will be provided within the site; a project office and integrated welfare facilities will be provided.

A register of environmental risks will set out the potential risks and the measures to remove the risk, agreed mitigation measures will be entered on the register and any mitigation measures defined by planning conditions. This will act as a management tool and be reviewed regularly. Measures in relation to noise, dust and waste management are set out.

Water pollution – the remote possibility of contaminated water entering a watercourse is addressed. Directional drilling rather than open trench is recommended for river crossings, and a methodology is set out. (It should be noted that only one stream crossing is proposed as part of this development and that crossing will be via a replacement bridge).

2.1.26. Maps and Drawings:

Drawing number, title and scale:

DETRA

Site Layouts:

JBM 1031-101 Indicative Site Layout Overall Masterplan, Rev E, scale 1:10560

JBM 1031-101.1 Indicative Site Layout Main Block, Rev E, scale 1:6000

JBM 1031-101.1 Indicative PV Layout Main Block, Rev A, scale 1:1000

JBM 1031-101 Indicative Site Layout Overall Masterplan, Rev E, scale 1:10560

JBM 1031-101.2 Indicative Site Layout SW Block, Rev E, scale 1:2,500

JBM 1031-101.2 to JBM 1031-101.2 (20 drawings) Indicative PV Layout Main Block, Rev A, scale 1:1000

Site Locations:

JBM 1031-102 Site Location Plan, Rev C, scale 1:25000

JBM 1031-103 Site Location Map, Overall Masterplan Rev A, scale 1:10560

JBM 1031-103.1 to JBM 1031-103.6 (6 drawings) Site Location Map, Rev A, scale 1:2500

JBM 1031-104 Site Location Map, Rev A, scale 1:10560*

Construction Layouts:

JBM 1031-110 Indicative Construction Layout Master Plan, Rev A, scale 1:10560

JBM 1031-110.1 to JBM 1031-110.19 (19 drawings) Indicative Construction Layout, Rev A, scale 1:250

Civils drawing package:

JBM 1031-200 Array Side Elevation, scale 1:75

JBM 1031-203 Invertor / Transformer Container, scale 1:100

JBM 1031-204 Comm & Storage Building, scale 1:100

JBM 1031-205 Costumer Control Building, scale 1:100

JBM 1031-213 Closed Circuit Television, scale 1:20

JBM 1031-214 Fence Layout, scale 1:50

JBM 1031-215 Typical 20kV/33kV Cross Section, scale 1:20

JBM 1031-216 Basic Road Cross Section, scale 1:20

JBM 1031-217 Single Span Bridge, scale 1:50

Gaeltech

20170425/JB/PD/01, Rev 00 Figure 1: 110kV Loop Substation Layout, scale 1:200

20170425/JB/PD/02, Rev 00 Figure 2: 110kV Loop Substation Elevation, scale 1:200

Macroworks

Landscape Mitigation Drawings:

LD.CLNFD 1.1 to LD.CLNFD 1.7 (7 drawings) Landscape Mitigation Plan, scale 1:2000

Digital File Name 2018s1279-001 D1.dwg, Rev D1 sheet 1 of 5

Digital File Name 2018s1279-001 D1.dwg, Rev D1 sheet 2 of 5

Digital File Name 2018s1279-001 D1.dwg, Rev D1 sheet 3 of 5

Digital File Name 2018s1279-001 D1.dwg, Rev D1 sheet 4 of 5

Digital File Name 2018s1279-001 D1.dwg, Rev D1 sheet 5 of 5

3.0 **Planning Authority Decision**

3.1. **Decision**

The planning authority decided to grant planning permission subject to 21 conditions, including:

2) permission for a period of 10 years from the date of the commencement of the development, the solar array to be removed at the end of the period.

3) the proposed transportation route to be in accordance with the transport assessment.

4) Environment

a) Prior to commencement the developer shall submit a biodiversity management plan (BMP) written by a qualified ecologist taking due regard to BRE National Solar Centre Biodiversity Guidance for Solar Developments and addressing the following issues:

Hedgerows to be maintained and enhanced with native species as necessary. Any hedgerows that are required to be removed shall be done only with the prior permission from Westmeath County Council, shall be undertaken out of nesting season and any loss of hedging shall be mitigated elsewhere on site.

Field margins shall be 7-10m wide. Uncropped tussocky grassland shall be established in this area and shall be left uncut for 2-3 years to facilitate development. A mix of perennial fine grasses and suitable wildflowers shall be incorporated into plantings.

Security Fencing shall have a 20-30cm gap provided between base of fence and ground level. Security fencing should be readily visible and facilitate climbing plants.

Creation of a wildflower meadows and grassland habitats shall be incorporated into BMP.

Pollen and nectar strips shall be provided.

Wild bird seed mixes shall be incorporated into the planting schedule.

Consider the provision of some localised bare uncultivated strips throughout the development.

Consider providing artificial structures (e.g. hard and soft wood log piles, rock & stone piles and any nesting boxes to be specified by a qualified ecologist) throughout the development in the form of hibernacula, habitats for invertebrates and nesting and roosting structures.

Grazing levels to be kept to a low intensity to facilitate establishment of the above. A grazing regime should be included.

Please ensure pesticide & weedkiller use is minimised and only used in the appropriate control of invasive weeds. Fertiliser use in the area shall be prohibited. Please detail management provisions for the site including grazing, mowing etc.

Key elements of biodiversity shall be monitored by a qualified ecologist at regular intervals, details of this shall be included and shall be agreed in writing with the planning authority prior to commencement of development.

b) prior to submission of a commencement notice for the development, the developer shall submit a detailed project waste management plan for the construction phase.

c) to j) re. construction management

5) Archaeology

The developer shall facilitate the preservation of archaeological materials or features that may exist within the site. In this regard the developer shall:

(a) exclude from development the areas of heightened archaeological potential identified in the archaeological assessment report pending investigation by means of geophysical survey.

(b) prior to the commencement of development. a suitably-qualified archaeologist shall be employed to carry out test excavations if, and as, deemed necessary and appropriate, on foot of the geophysical investigations and in consultation with the National Monuments Service (NMS), Department of Culture Heritage and the Gaeltacht (DCHG).

(c) Provide arrangements, acceptable to the PA and NMS for the most appropriate means of mitigation of archaeological features identified by the aforementioned investigations. Mitigation may entail preservation in situ or preservation by record (i.e. full archaeological excavation).

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.

6) Mammals

The exclusion and minimum buffer zones indicated in the Ecological Impact Assessment Report shall be maintained for the active and inactive historical badger sett entrances within the site.

Reason: In the interests of nature conservation.

7) Transformers/invertors

The invertors/transformer stations shall be green in colour. The external walls of the proposed buildings shall be finished in a neutral colour such as grey.

Reason: In the interests of the visual amenity of the area,

8) Lighting

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

Reason: In the interests of the visual and residential amenity and traffic safety,

9) CCTV cameras

Prior to commencement the location of the CCTVS will be submitted and agreed by the PA. The CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining properties or the roads.

Reason: In the interests of the amenities of the area.

10) Solar Panels

The Solar Panels shall have driven or screw pile foundations only, unless otherwise agreed in writing with the PA.

Reason: In the interest of the long term viability of the agricultural land and to minimise impacts on drainage patterns.

11) Cables

a) Prior to commencement the applicant shall submit to the PA and agree details of the cable route from the junction of the R446 and the L5008 to the site.

b) Prior to commencement the developer shall submit a written guarantee that WCC will not be liable for cost associated with the future relocation of the HV cable or loss of earning during the relocation of cable in the event of realignment or repair of the road.

c) Cables within the site shall be located underground.

Reason: In the interests of orderly development and visual amenity,

12) Roads

a) Prior to commencement the developer shall submit to the PA for written approval fully annotated construction design drawings showing the following:

Proposed revised L5008 / R446 junction layout which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060). Sightlines of 2.4m x 160m to be achieved and maintained at all times from the proposed revised L5008 / R446 junction. These shall remain unobstructed and nothing shall be planted, sown, constructed or erected forward of the sightlines.

Proposed new site access junction layouts on the L5008 and L5009 which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060) and sightlines of 2.4m x 120m to be achieved and maintained at all times from the proposed access points on the L5008 and L5009. These shall remain unobstructed and nothing shall be planted, sown, constructed or erected forward of the sightlines.

Proposed new site access junction layouts on the L1007, which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060) and sightlines of 2.4m x 120m to be achieved and maintained at all times from the proposed access points on the L1007. These shall remain unobstructed and nothing shall be planted, sown, constructed or erected forward of the sightlines.

Proposed passing bay to be provided on the L5008 in accordance with preliminary design drawing 2017 C264_1/6V1.1 submitted for planning. The design to be in accordance with the TII Publication: Guidance on Minor Improvements on National roads (DN-GEO-03030).

b) Sightlines of 2.4m x 160m to be achieved and maintained at all times from the proposed existing access point on the R446. These shall remain unobstructed and nothing shall be planted, sown, constructed or erected forward of the sightlines.

c) Sightlines of 2.4m x 120m to be achieved and maintained at all times from the existing the L5008 / L1007 junction. These shall remain unobstructed and nothing shall be planted, sown, constructed or erected forward of the sightlines.

d) Prior to commencement the developer to submit to the planning authority for written approval a road condition survey (which shall include FWD tests) of the roads along all the local road network (L-5008 and L-1007) over which construction traffic will travel, as shown in Figure 2.2 – Construction Traffic Route of the RFI Traffic Response submitted for planning. This road condition survey shall be carried out by a qualified engineer both pre and post construction of the Solar PV Energy Development at the developer's expense. The pre-construction road condition survey shall include a schedule of required works to enable the Designated Construction Traffic Routes to cater for construction-related traffic. The extent and scope of the survey and the schedule of works required shall be based on the survey results and shall be agreed with the PA prior to commencement of development. The post construction road condition survey to be completed within three months of satisfactory completion of the development.

e) If any construction damage arises to the public roads during construction, this shall be immediately rectified to the satisfaction of the PA.

f) Prior to the commencement of development, the developer shall lodge with the PA, a cash deposit / bond of insurance company, or other security to secure the satisfactory reinstatement of public roads subjected to construction traffic, coupled with an agreement empowering the PA to apply such security or part thereof commensurate with the cost of satisfactory completion of the reinstatement. The form and amount of the security, which will not exceed €200,000, shall be agreed between the PA and the developer, or in default of agreement, shall be determined by An Bord Pleanála.

g) The developer to apply to WCC for a road opening licence for all road openings including road openings required for cabling along the R446, L-1007 and L-5008.

h) A road sweeper to be maintained on site at all time and used to ensure that all access roads to the facility are kept clean for the duration of the construction work.

i) The developer shall carry out a Stage 3 Road Safety Audit post construction on the completed junctions and access points on all public roads in accordance with the provisions of TII document 'GE-STY-01024 Road Safety Audit'. The recommendations of the Stage 3 Road Safety Audit shall be implemented within a timeframe to be agreed with the PA.

Reason: In the interests of traffic safety,

13) Glint and Glare

In the event that the proposed mitigation measures do not negate glint and glare along the M6, the developer shall be responsible for any mitigation costs or for the removal of the elements of the solar farm.

Reason: In the interests of traffic safety,

14) Surface water

The surface water system shall be designed to mimic existing green field runoff from the proposed site during a hundred year rainfall event and a restricted discharge rate of no greater than 5l/s/ha (min 5l/s).

All water courses crossed by service roads shall be culverted adequately to ensure no reduction of existing land drainage.

All surface water from all hardstanding areas for vehicular refuelling, maintenance, waiting and parking shall be passed through adequately sized and located petrol / oil bypass interceptors before any discharge to waters. Prior to commencement the developer shall submit to the PA for agreement full details of the petrol / oil interceptors and hardstand area. All fuel, lubricants or other chemical storage tanks shall be adequately bunded to protect against spillage. Bunding shall be impermeable and capable of retaining a volume equal to 1.5 times the capacity of the largest tank. The developer shall take precautions to

ensure that oils and fuels used in the operations are stored in a secure place. All waste oil shall be removed from the site and disposed of in accordance with the Waste Management Act 1996-2003 and to the satisfaction of the PA.

Where the development land is higher than the public road a linear drainage channel or gully shall be placed at the entrance to the development, connected back to an additional dedicated soakaway.

Reason: In the interests public health and orderly development.

15) Sewage treatment and disposal system

All foul sewage & effluent associated with development shall be removed from site by licensed waste contractor in accordance with the Waste Management Act 1996-2003. Prior to commencement developer to submit to the PA for agreement full details of maintenance contract with a licensed waste contractor in accordance with the Waste Management Act 1996-2003.

Reason: In the interests public health, environmental protection and orderly development,

16) Water to welfare / canteen facilities

The applicant / developer shall enter into water and / or wastewater connection agreement(s) with IW prior to commencement of this development where it is proposed to connect to a public water/ wastewater network operated by IW.

Reason: In the interests public health, environmental sustainability and in order to ensure

17) Cleaning of panels

The cleaning process of the panels shall be undertaken by a self contained mobile cleaning unit that does not require an external water supply within the site. The use of ground and surface water from within the site is prohibited. No chemicals shall be used during the cleaning process.

Reason: To protect the ground water.

18) Landscaping

All landscaping as specified in the Landscaping plan shall take place in the first planting season following commencement of development and in accordance

with the scheme submitted with the application and as agreed. The landscaping and screening shall be maintained at regular intervals. Any trees or hedgerow that are removed, die or become seriously damaged or diseased within five years from planting shall be replaced within the next planting season by trees or hedging of similar size and species, unless otherwise agreed in writing with the planning authority.

Reason: In the interests of biodiversity and the visual amenities of the area.

19) Restoration Plan

a) Prior to commencement of development, a detailed Restoration Plan including a timescale for its implementation, shall be submitted to, and agreed in writing with, the PA.

b) On full or partial decommissioning of the solar array, or if the solar array ceases operation for a period of more than one year, the site, including access road, shall be restored and structures removed in accordance with the plan within three months of decommissioning / cessation, to the written satisfaction of the PA.

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

20) Bond

a) Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or other security as may be acceptable to the planning authority to secure the satisfactory reinstatement of the site on cessation of the project, coupled with an agreement empowering the LA to apply such security or part thereof to such reinstatement. The value of the bond shall be submitted to and agreed by the PA prior to the commencement of the development.

21) Development Contribution

S48 in the sum of €1m (€1000 per 0.1MW).

3.1.1. The decision was in accordance with the planning recommendation.

3.1.2. A post decision memo from the Executive Planner to the DM (District Manager) has been submitted which refers to condition no. 2: the limit of permission to 10 years. It states that this was a typing error and that the requested life of 30 years would not be an unusual time period as 6 other solar farms granted permission in Westmeath have a lifespan of 25 years from commissioning or commencement. The memo refers to section 146A of the Planning and Development Acts and recommends that the condition be amended.

3.2. **Planning Authority Reports**

3.2.1. Planning Reports

3.2.2. There are two planning reports on the file; the first recommending a request for further information, includes:

- Noting 20 observations.
- Noting internal reports and submissions from prescribed bodies.
- Assessment
    - Reference to guidelines published by BRE National Solar Centre Biodiversity Guidance for Solar Developments.
    - Reference to National Framework Plan National Strategic Outcome 8.
    - Reference to National Development Plan 2015-2021.
    - Reference to Government White Paper titled ‘Ireland’s Transition to a Low Carbon Energy Future 2015-2030, published in December 2015.
    - Reference to Planning and Development Guidance Recommendations for Utility Scale Solar Photovoltaic Schemes in Ireland (October 2016 report prepared by Future Analytics for the Sustainable Energy Authority Ireland / SEAI).
    - Reference to EMRA Regional Spatial Economic Strategy (RSES).
    - Reference to Westmeath County Development Plan 2014-2020.
    - Road & Traffic Safety – the four sites located to the north of the R446 are currently accessed via local roads, the site to the south is accessed

directly from the R446. It is proposed that the access to the development site be primarily accommodated via a new access junction onto the L5008 during the construction phase. The vast majority of traffic will utilise only 115m of the local road. A 130 section of the local road will be widened from the junction of the L5008 with the R446 to accommodate efficient two-way HGV movements and safe passage of background traffic to facilitate construction access. Adjacent development sites to the north of the R446 within the overall site will be accessed internally with road crossing points, where necessary and feasible, to minimise the length of haul routes using local roads. Access to the site south of the R446 uses the existing direct access from the R446. The further information requested by the Transportation Section is noted.

- Flooding and Drainage – PFRA submitted.
    - Fluvial - part of each site is within flood zone A and B. A hydraulic model was developed.
    - Pluvial – per OPW FRA map – specific areas in site 1 and 2 are at risk of Pluvial Flooding in localised depressions.
    - Groundwater – no groundwater flooding indicated. Moderate Groundwater vulnerability.
    - Hydrology – flow estimates for 1%, 0.1% AEP event flows expected along the Milltownpass and Kinnegad Rivers. Sections of each of the sites are at risk of Fluvial flooding. The recommendation is to provide a freeboard of 400mm over the1% AEP event and 100mm above the 0.1% AEP and residual risk assessment scenarios. It is possible to locate the solar arrays in flood zone A or B. Specific isolated sections of site 2 require the structures to be raised to 1.1m above ground. No critical infrastructure can be located within Zone A or B. Certain areas are at risk of pluvial flooding, the 0.8m base provides sufficient protection.
    - The placement of the solar panels will have no impact on the surface water regime onsite.

    - The impact will be positive. Measures include the provision of long grass to attenuate surface water flow and chisel ploughing between arrays to improve infiltration.

- A Drainage Report was submitted which includes mitigation measures – interception trenches at boundaries where the site slopes towards them; chisel ploughing and seeding; use of longer meadow type grass; a soil management plan to keep soil in good condition during the operational phase and for any decommissioning.
- Ecological assessment – site is local importance lower to higher value, as it contains semi-natural hedgerows, treelines, wet grassland and protected species. The removal of c380m of hedgerow is proposed and the creation of 2,674m of new hedgerow. The development will largely be confined to open agricultural fields dominated by improved agricultural grassland, neutral grassland, and arable land. Potential impacts which could arise during the construction phase will be mitigated by the implementation of standard environmental controls in the OCEMP. An active badger sett is noted and several inactive badger setts. An exclusion zone of 50m from the active badger sett entrance has been used and exclusion zones of 30m from the inactive badger sett entrances. Overall impact is neutral to slight positive.
- An AA screening report concluded that the proposed development cumulatively or in combination with other identified plans and projects will not adversely affect the integrity of any European site. The Environment Department concurs. The site is located in hydrometric area 7, the nearest designated site is 5km away (Mount Heavey Bog) and not hydrologically linked. There are distant hydrological links between the site and the River Boyne & River Blackwater SAC/SPA over 18km downstream. It is concluded that no significant effects are likely to occur and that Stage 2 AA is not required.
- Block 1 lands are 270m northeast of Milltownpass Bog NHA and block 2 900m south east of Milltownpass Bog NHA. The Department of Culture, Heritage and the Gaeltacht notes that the development is located adjacent

to Milltownpass Bog NHA site code 002323 and that the development could potentially negatively impact the NHA by increased drainage of the peatlands required as maintenance of the public roadway due to significant increase in number and weight of vehicles using the L1007, which could alter the hydrology of the Bog. They recommend a condition in relation to the transportation route.

- EIA screening – mandatory EIAR is not required. Sub-threshold EIA is not considered necessary.
- Landscape, land use, visual, residential amenities – character area 10, preserved views from R446 c7km away and do not impinge on the proposed site. Pasture land, cutover and preserved bog and demesnes characterise the area. About 380 linear metres of hedgerow will be removed and 2,674 m of new hedgerow planted, comprising native species of mixed-age including whips and advanced nursery stock. In addition the margins of the development site, between the perimeter fence and hedgerow, will be planted with wildflower / wild grass seeding of local provenance. Grazing by small livestock, such as sheep, can continue. The absence of fertilisers and chemical-based substances will allow species rich grassland and the land can be fully restored to full agricultural production once the solar farm has been decommissioned. Views from the public road will be quite limited. The development would generally be contained within the existing site and its framework of hedgerows. Boundary vegetation will be enhanced and improved as part of the development. There will be no impacts on amenity long term; but some short term construction impacts from traffic and equipment.

  In the short term the solar farms would be visible in the wider landscape, changing the traditional use and character of agricultural fields. In the longer term, planting will reduce views. Effects will not be of such a degree to adversely affect residential amenity or property value.
- Glint and glare – A total of 194 dwellings were examined by terrain only data (DTM) and it was found that glint and glare is theoretically possible at 129. Further analysis taking account of existing screening indicates that 23

dwellings are likely to have the potential to be materially affected. Buffers from residences are provided at 50m along the L1007 and L1025 to the north. Additional site hedgerows and planting have been incorporated which will be maintained at 3-4m and provide further screening. The glint and glare report concludes that 'there will be no substantial nuisance effects generated from glint and glare along surrounding dwellings as a result of the proposed solar farm'. 531 receptor points are positioned along affected roads. Analysis using terrain only data (DTM) indicates that glint and glare is theoretically possible at 337. Further analysis taking account of existing screening, using a digital surface model (DSM) and onsite verification, determined that 64 of the receptor points actually have the potential to be materially affected by reflectance. Once the proposed mitigation measures have been factored in the number of potentially affected receptor points reduces to 15. These 15 points were further examined. The existing screening coupled with a site investigation indicates that the potential for residual glare is highly unlikely or can be discounted.

- Having regard to the relative orientation of properties to the solar farm (and orientation of panels) the nature of the landscape and prevalence of intervening hedgerows and proposals for additional landscaping, the conclusion drawn seems reasonable.
- Archaeology – the archaeological impact assessment identifies two recorded monuments and places exclusion zones around them. Several features of archaeological potential were identified on the aerial photography in blocks A and C; comprising five circular and rectangular features close to the recorded monuments in Block A and a circular feature in the east of block C. A small sub-ovular hill which may be an archaeological feature was identified in the centre field of block B. Groundworks Associated with the proposed development have the potential to negatively impact this potential feature. There may be the potential to impact on previously unrecorded features or deposits that survive beneath ground.

- Mitigation is set out in section 5.2 – including non-invasive techniques such as concrete boots. It recommends avoidance of the recorded monuments and a zone of at least 30m from the edge of any upstanding remains. A programme of geophysical surveys, in the fields containing the recorded monuments and potential archaeological features, to establish the nature and extent of the features. Archaeological testing should also be carried out in these areas and also at the sub-ovular hill. If any features of archaeological potential are discovered, mitigation, such as preservation in-situ or by record, may be required.
- It recommends that all ground disturbances be monitored by a suitably qualified archaeologist. If any features of archaeological potential are discovered, mitigation, such as preservation in-situ or by record, may be required. Any mitigation will require approval from the National Monuments Service.
- The DoCHG report is noted.
- The conclusion of the planning report is that the proposal is generally acceptable but that further information on 10 points should be requested; which request issued.

3.2.3. Other Technical Reports

3.2.4. Area Engineer – R446 (8m wide), local primary L1025 and L1007, local secondary L5008 and L5009; drainage report submitted is satisfactory; OPW preliminary FRA: that map designated part of the site is at risk of both Pluvial and Fluvial Flooding. Flood Risk Assessment is satisfactory. Prior to commencement the applicant shall agree and submit to the PA details of the cable route from the junction of the R446 and the L5008 to the site, this detail is omitted from the documents provided. Prior to commencement the developer shall submit a written guarantee that WCC will not be liable for cost associated with future relocation of the HV cable or loss of earnings during the relocation of cable, in the event of realignment or repair of the road.

Conditions recommended re. surface water, sewage treatment, potable water and bond; recommendations are included in PA's decision.

3.2.5. Fire Officer – conditions.

3.2.6. Environment Section 31/07/2019 conditions in relation to the submission of a Biodiversity Management Plan, Waste Management Plan and Construction Environmental Management Plan (CEMP); and environmental control conditions.

The report concurs with the conclusion in the AA Screening Report carried out by Ecology Ireland Ltd, which concluded that the proposed development cumulatively or in combination with the other identified plans and projects will not adversely affect the integrity of any European site, because no significant negative effects are predicted upon any European site.

A detailed assessment has been carried out to address the key environmental considerations, including ecology and appropriate assessment screening, landscape and visual impact assessment, glint and glare assessment, flood risk assessment / hydrology, noise, traffic and transportation and archaelogy, they have determined that the form and scale of the development does not require an EIA.

An Ecological Impact Assessment has concluded that the proposed development will have no significant effects on designated sites, local habitats, flora or fauna. It further deems that the proposed development will result in a neutral to slight positive residual effect on ecology overall.

From a search of the area via GIS there appears to be an esker running through the subject area. Hightown Esker appears to be located in the area of the proposed solar farm. This is deemed as being of local importance in the Esker Study carried out in 2006 and is mentioned in Westmeath County Development Plan 2014-2020, however in the *Geological Heritage of County Westmeath – An Audit of County Geological Sites in County Westmeath* carried out this year, this Esker was not mentioned. This Esker does not have any designation as an area of natural heritage or as a potential National Heritage Area and is not considered to be of County Geological Site Status. The presence of the esker is not apparent on site or via aerial photography / google earth. No reference has been made to this Esker in the Ecological Impact Assessment.

Recommending 12 conditions:

1. Prior to commencement of development the developer shall submit a Biodiversity Management Plan (BMP) written by a qualified ecologist.

2. Prior to submission of a Commencement Notice for the development, the developer shall submit a detailed project waste management plan for the construction phase to the Planning Authority for agreement.
3. Control of noise from the construction works.
4. Management of oils and hydrocarbons.
5. All fuelling of plant on site shall be carried out in a nominated location within the confines of the site.
6. Re. waste oils.
7. Re. contaminated water.
8. Max. dust deposition.
9. A decommissioning plan to be agreed in writing.
10. Permeable tracks shall be used, and localised SUDs.
11. CEMP to be submitted and agreed in writing.
12. Prior to commencement of development further investigation shall be carried out into the possible presence of Hightown Esker in the application area and, if necessary, details of measures to protect the esker during construction and operation of the solar farm shall be submitted and approved in writing by the Planning Authority.

3.2.7. Transportation – recommending requesting further information on:

- The applicant shall confirm the exact extents of the Designated Construction Traffic Route.

- Both the outline site access strategy (Fig 3.1 of Transport Assessment) and the Designated Construction Traffic Route (Fig 7.2 of Transport Assessment) appear to show construction traffic on the northern section of the L5008, but the report does not address how this 3m wide section of road will be upgraded to facilitate construction traffic. Clarification in relation to this is required from the applicant.

- Both the outline site access strategy (Fig 3.1 of Transport Assessment) and the Designated Construction Traffic Route (Fig 7.2 of Transport Assessment) appear to indicate that the construction traffic will travel along the northern section of the L5008 to its junction with the L1007. At this junction, construction traffic is shown turning both left and right to reach site accesses. No visibility Splay Assessment Drawing

was provided as part of the Transport Assessment Report for this junction. Therefore, can a Visibility Splay Assessment Drawing be provided for the junction of the L5008 and L1007 that demonstrates sightlines of 2.4m x 160m can be achieved and maintained at all times.

- The applicant shall submit to the PA for review, fully annotated preliminary design drawings showing the following:

  a) Details of proposed revised L5008 / R446 junction layout which shall be designed in accordance with TII Publication: Geometric Design of Junctions (DN-GEO-03060).

  b) Details of proposed new site access junction layout on the L5008 which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060).

  c) Details of L5008 road crossing which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060).

  d) Details of L5009 road crossing which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060).

- The applicant shall submit to the PA for review, fully annotated preliminary design drawings (including cross sections) showing the proposed road widening on the L5008.

- The applicant shall identify the proposed quarry sources and the haul routes associated with these sources. If no such sources have been identified at this stage a summary of potential sources and their associated haul routes shall be identified.

- The applicant shall submit their planned proposals / systems to ensure the Designated Construction Traffic Route is adhered to during construction.

- The applicant shall submit proposals for how they intend to assess and monitor the condition of the public routes within the Designated Construction Traffic Route and how any deterioration of the public routes as a consequence of construction traffic will be addressed.

- Evidence that the applicant has the appropriate legal entitlements / agreement to undertake all works relating to road widening, junction improvements, creation of

new accesses, creation of road crossings and construction of passing bays shall be submitted.

- The applicant shall submit the following details in relation to cabling for the proposed development:

a) A typical cross section of proposed cabling along the R446.

b) A typical cross section of proposed cabling along the L1007

c) A typical cross section of proposed cabling along the L5008.

d) Cable draw pit locations, details of draw pit dimensions, draw pit cross sections and reinstatement proposals for draw pits.

Applicant is encouraged to liaise with Transportation prior to response.

3.2.8. Environmental Health Service – FI on staff facilities, waste management and pest control; noise - comprehensive noise survey; geology and hydrogeology – would welcome further discussion on cleaning panels; a survey of local wells is requested; a significant network of cabling and associated equipment is involved, they would welcome FI which demonstrates the suitability, physical integrity and longevity of such hardware to minimise or eliminate negative environmental impacts due to degradation over time. There is limited information regarding climate or micro-climate, and further discussion would be welcomed on this subject.

3.2.9. Westmeath National Roads Office – no schemes under development near this site.

3.3. **Prescribed Bodies**

3.3.1. IW – no objection.

3.3.2. IAA – no observations.

3.3.3. TII requesting FI - noting that the glint and glare assessment determined that no national road network receptors assessed identified any glint and glare impacts to the national road on the basis of existing screening and proposed mitigation. In the absence of mitigation, a number of road receptors along the M6 have been identified as being subject to potential impacts (R439 to R446 and R451 to R459). It is critical that mitigation is effective to address the potential impacts identified. The council should ensure that appropriate levels of screening and mitigation are identified and provided for in any approved scheme to avoid glint / glare impact on the M6 national

road and that such mitigation is included in any decision to grant planning permission on the subject site.

The council is requested to identify a monitoring programme for the applicant to adhere to which should allow for additional mitigation if necessary and amendment / removal of any elements of the solar PV farm that may result in glint / glare and impact on the M6. The applicant shall be responsible for any costs associated with the required mitigation.

Grid connection proposals are not part of the subject application. Additional consents may be required for crossing the M6 / M4. Neither this submission, not any grant of permission should be taken as an indication of any such consent.

The Authority will entertain no future costs in respect of impacts (e.g. dust, vibration etc) on the proposed development, if approved, due to the presence of the existing road or any new road scheme which is currently in planning.

3.3.4. Geological Survey – directing the planning authority to the various datasets available on their website.

3.3.5. Department of Culture, Heritage and the Gaeltacht (30 July 2019) – nature conservation - noting that local road L1007 is not proposed as a means of access for construction, and during operational phase usage will be limited to several LGV's a month. This should be made a condition. The loss of wetland habitat, as identified in the EIA, will most likely negatively impact on the breeding success of Meadow Pipits in that habitat. They were recorded in that habitat in the EIA. This is an amber listed species (per Birds of Conservation Concern in Ireland (BCCI)).

3.3.6. Department of Culture, Heritage and the Gaeltacht – (30 July 2019)

Archaeology:

The applicant should be given the opportunity to exclude the areas of archaeological potential and the need for further archaeological investigation. They should instead be investigated by means of geophysical survey followed by archaeological test trenching.

Geophysical Survey to consist of:

Geophysical Survey of areas of heightened archaeological potential identified.

Depending on the findings, test excavations if deemed necessary following consultation with the Department.

These investigations will facilitate the identification of archaeological features. The plans might have to be altered in consultation with the National Monuments Services Section of the Department to facilitate preservation in situ of any features identified.

Nature Conservation:

The site is adjacent to Milltownpass NHA. The Department is of the view that it could be negatively impacted by increased drainage of the peatland as a result of a significant increase in the number and weight of vehicles using the L1007 which runs along Milltownpass Bog NHA, resulting in increased road maintenance such as roadside drainage, which could alter the hydrology of the bog. The Transport Assessment is not proposing the use of L1007 during construction and projected usage during the operational stage will be limited to several LGV's a month. This should be made a condition of consent.

They reiterate their concern at the loss of wet grassland habitat and the likely impact on Meadow Pipits.

3.4. Further Information

3.4.1. A further information request issued, 16th August 2019, on 10 items:

1 a-j per roads report

2 construction management

3 noise

4 geology and hydrogeology

5 environmental health

6 climate / micro-climate

7 archaeology assessment

8 ecology

9 mammal access

10 temporary construction compounds.

3.5. **Response to Further information request.**

3.5.1. Tom Phillips & Associates have submitted a letter of response on behalf of the applicant, 7/10/2019, which includes:

Re. item - 1a-h - Transport Insights response is attached.

Re. item 1i - evidence that the applicant has the appropriate legal entitlements / agreement to undertake all works relating to road widening, junction improvements, creation of new accesses, creation of road crossings and construction of passing bays shall be submitted.

Response – Works within red line boundary. Letters of consent were submitted with the application.

Re. item 1j - the applicant shall submit the following details in relation to cabling for the proposed development:

e) A typical cross section of proposed cabling along the R446.

f) A typical cross section of proposed cabling along the L1007

g) A typical cross section of proposed cabling along the L5008.

h) Cable draw pit locations, details of draw pit dimensions, draw pit cross sections and reinstatement proposals for draw pits.

Response: Drawings: TLI-T924-GC-DR-P-XXX-P01 Ducting Through Regional / Local Roadways and TLI-T924-GC-DR-P-XXX-01 Typical Joint Bay Slab Elevation & Plan Layouts.

Further investigation can be made to the specific make up of the local roads prior to commencement of development and submitted to WCC for consideration.

Re item 2 - Environmental Health Service – FI on staff facilities, waste management and pest control;

Response – Appendix A includes additional details of Construction Management Plan.

Re. item 3 - Environmental Health Service - noise - comprehensive noise survey;
Response – report by TMS Environment Ltd.

Re item 4 - Environmental Health Service - geology and hydrogeology.

Response – report by JBA Consulting.

Re item 5 - Environmental Health Service - the suitability, physical integrity and longevity of such hardware to minimise or eliminate negative environmental impacts due to degradation over time.

Response – underground HV cables and associated hardware are designed to withstand a minimum life of c30-40 years. The International Electrotechnical Commission (IEC) and Irish national normative aspect (NNA) specifications state a minimum design life of 40 years where cables are operating in a high voltage capacity. The cable system is expected to be designed and installed to meet these specifications at a minimum.

Re. item 6 - Environmental Health Service - the limited information regarding climate or micro-climate.

Response – the proposal represents a significant positive environmental impact; there will be minimal if any impact on micro-climate; <1.5% sunlight reflected, similar to reflection from water surface; no risk of fire.

Re. item 7 – Archaeology.

Response – further to discussions with WCC this can be dealt with by condition.

Re. item 8 – Ecology.

Response – Ecology Ireland Ltd.

Re. item 9 – Mammal Access.

Response – drawing - JBM 1031-214 Rev A Perimeter Stock Proof Security Fencing 200mm void at the bottom allows access for mammals.

Re. item 10 – construction compound.

Response - drawings of construction compounds - JBM 1031-001.7 B, 9B, 13B, 14B, and 17B; which illustrate that compounds will be removed and reseeded with grass prior to installing panels in these areas.

3.5.2. The response is accompanied by reports by:

TMS Environment Ltd

JBA Consulting

Ecology Ireland Ltd

Transport Insights

and Drawings:

3.5.3. The TMS Environment Ltd report includes:

Noise at construction and operational stages are considered, which demonstrate that the construction phase will be well within the permissible levels during construction and will not be a cause of nuisance; and during the operational phase there will be no noticeable change in noise level relative to the existing noise levels in the area.

3.5.4. The JBA Consulting report includes:

Re item 4, geology and hydrogeology – to ensure optimal performance of the system periodic cleaning is required to remove dust particles and other small-scale environmental contamination. Cleaning will be undertaken at least once per year. The operation involves a single vehicle that uses low water volumes ($0.1m^3$ per MW) and moves along the panel cleaning the system. No on-site water or electricity supply is required as the cleaning vehicle is a self-contained mobile system. The entire process is predicted to take 3-4 weeks. No chemicals will be used during the cleaning process as it is based on de-ionised/purified water. A cleaning roller is used to remove dust/contaminants from the surface of the panels with the use of special microfibre cloth. As the overall flow rate is low per square metre, it is not expected any runoff will reach the underlying groundwater body and instead will be absorbed by the overlaying grass vegetation or lost through the evapotranspiration process.

3.5.5. The Ecology Ireland report includes:

Re. items 8 & 9

Item 8 refers to two red listed species, neither is a special conservation interest of any SPA in the wider area.

Yellowhammer require a minimum amount of cereal in the landscape for a population to be maintained. Arable crops are present at two locations towards the south west of the development site boundary. The crop at one of these locations comprised cereals, a potential source of food for Yellowhammer. The proposed landscaping includes the creation of 2,674 linear metres of new hedgerow which will enhance overall habitat and species diversity. This, combined with the management

of field margins to promote wildflower / wild seed meadows, will enhance the quality of Yellowhammer breeding habitat at the development site and is in accordance with accepted guidelines for this species. Production of arable crops will cease resulting in the loss of 6.8ha of cereal crops. This site is located within a landscape dominated by Complex Cultivation Patterns indicating that arable crops are widespread in the wider area. The landscaping plan includes the planting of wild grass seed mix, including cereal, along the margins of the site, which will be allowed to go to seed, providing a source of food and cover for a range of avian species, including Yellowhammer. The area of new wild grass / cereal meadow >10ha, will offset the loss of cereal habitat. The proposal will have a neutral to slight positive impact on Yellowhammer.

Meadow Pipit is a widespread breeding species in Ireland. They breed in bogs, upland areas of scrub and pasture. Optimal breeding habitat is a mosaic of heather, bog and grassland; with intensive grazing by livestock negatively associated with the species. The population decline occurred as a result of two severe winters 2009/2010 and 2010/2011. Since the publication of the BoCCI Red-list in 2013 the population of this species has substantially recovered, demonstrated by the graph supplied at Figure 2.1 of the report. The site contains some areas of semi-natural wet grassland habitat which could be used by breeding Meadow Pipit, in fields towards the south western boundary (block 2) and within the far eastern section (block 1). An area of wet grassland is also present towards the northern section (block 1) and towards the north west. Small areas of semi-natural grassland will be directly impacted: two inverter / transformer stations will be located within wet grassland habitat resulting in the loss of 30m^2 of wet grassland habitat. Placement of solar panels in other areas of wet grassland habitat is not expected to exclude Meadow Pipit from using this habitat. Under lower intensity management there is the potential for an increase in flora species diversity over time, potentially resulting in an increase in suitable habitat (rough grassland) for Meadow Pipit at the site. The proposed landscaping plan includes the planting of wild grass seed mix along the margins of the site, which will further increase the available habitat for Meadow Pipit, where previously improved grassland dominated the field margins. Potential impacts on Meadow Pipit are neutral to slight positive.

Item 9 mammal access fence – a 200mm void at the base of the fence will provide unfettered access for mammals – Fox and Badger.

3.5.6. The Transport Insights report includes:

Re items 1a to 1h –

- 1a - The applicant shall confirm the exact extents of the Designated Construction Traffic Route.

Response - the exact extents of the construction traffic route extends to:

R446 regional road; L5008 local road, c 115m of the proposed widened section at its southern end and c 560m along the northern end; and L1007 c 850m located either side of junction with 5008, as shown in Figure 2.1 and Figure 2.2 of the response.

- 1b - Both the outline site access strategy (Fig 3.1 of Transport Assessment) and the Designated Construction Traffic Route (Fig 7.2 of Transport Assessment) appear to show construction traffic on the northern section of the L5008 but the report does not address how this 3m wide section of road will be upgraded to facilitate construction traffic. Clarification in relation to this is required from the applicant.

Response - the L5008 has very low background traffic and it had been considered that the temporary use by construction traffic was acceptable. It is now proposed to provide a passing bay along this section of road adjacent to the southwest carriageway edge c240m southeast of the L5008/ L1007 junction and c240m to the northwest of the proposed site access; and in accordance with the recommendations in TII publications (Standards) Rural Road Link Design (DN-GEO-03031, June 2017).

- 1c - Both the outline site access strategy (Fig 3.1 of Transport Assessment) and the Designated Construction Traffic Route (Fig 7.2 of Transport Assessment) appear to indicate that the construction traffic will travel along the northern section of the L5008 to its junction with the L1007. At this junction, construction traffic is shown turning both left and right to reach site accesses. No visibility Splay Assessment Drawing was provided as part of the Transport Assessment Report for this junction. Therefore, can a Visibility Splay Assessment Drawing be provided for the junction of the L5008 and L1007 that demonstrates sightlines of 2.4m x160m can be achieved and maintained at all times.

Response – as the construction traffic access strategy sought to minimise traffic through this junction a dedicated visibility splay drawing was not produced. Drawing, attached as an appendix, shows 2.4m x 160m visibility which can be achieved without works other than hedge trimming, if needed.

- 1d - The applicant shall submit to the PA for review, fully annotated preliminary design drawings showing the following:

    a) Details of proposed revised L5008/R446 junction layout which shall be designed in accordance with TII Publication: Geometric Design of Junctions (DN-GEO-03060).

    b) Details of proposed new site access junction layout on the L5008 which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060).

    c) Details of L5008 road crossing which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060).

    d) Details of L5009 road crossing which shall be designed in accordance with the TII Publication: Geometric Design of Junctions (DN-GEO-03060).

Response – preliminary design layout drawings were prepared and included with the application. Transport engineering design drawings are included in an appendix to the response. Junction of L5008 / R446 will involve widening of the L5008 by 6m. The corner radius on western side to be 9m in accordance with TII publications; the corner radius on eastern side to be unchanged as lands adjacent are outside the applicant's control. Sightlines of 2.4m x 160m along the R446 are available. Site access on the L5008: drawings are included in an appendix to the response, radius of 9m, sightlines of 2.4m x 120m. L5008 road crossing, stop controlled: drawings are included in an appendix to the response; radius of 9m on all arms, road widths of 6m, sightlines of 2.4m x 120m. L5009 road crossing, stop controlled; drawings are included in an appendix to the response, radius of 9m on all arms, road widths of 6m, sightlines of 2.4m x 120m. Hedges, within the applicant's control, will need to be cut back to achieve the sightlines.

- 1e - The applicant shall submit to the PA for review, fully annotated preliminary design drawings (including cross sections) showing the proposed road widening on the L5008.

Response – drawings are included in an appendix to the response, 6m width for a distance of 130m from the junction.

- 1f - The applicant shall identify the proposed quarry sources and the haul routes associated with these sources. If no such sources have been identified at this stage a summary of potential sources and their associated haul routes shall be identified.

Response – quarry has not been selected, a number of identified quarries in the vicinity are shown on map. In all cases it is envisaged that the R446 and the widened section of local road will accommodate the quarry vehicles. HGV traffic delivering the solar panels will arrive at Dublin Port and use the national road network, M50, N4/M4 and M6 and R446, returning along the same route.

- 1g - The applicant shall submit their planned proposals / systems to ensure the Designated Construction Traffic Route is adhered to during construction.

Response – extracts from the submitted documents are reproduced to show that adherence to the Construction Traffic Route will be part of the contract between the applicant and the contractor.

- 1h - The applicant shall submit proposals for how they intend to assess and monitor the condition of the public routes within the Designated Construction Traffic Route and how any deterioration of the public routes as a consequence of construction traffic will be addressed.

Response – it is proposed to undertake a road condition survey on L5008 and 850m of L1007, including a falling weight deflectometer (FWD) test. This will be a condition of a grant of permission and will be undertaken prior to commencement and a subsequent survey will be completed following conclusion of construction works.

3.5.7. Drawing number, title and scale:

TLI-T924-GC-DR-P-XXX-P01 Ducting Through Regional / Local Roadways

TLI-T924-GC-DR-P-XXX-01 Typical Joint Bay Slab Elevation & Plan Layouts.

JBM 1031-101.7 Rev B Indicative main delivery compound, scale 1:250

JBM 1031-110.9 Rev B Indicative main delivery compound, scale 1:250

JBM 1031-110.13 Rev B Indicative main delivery compound, scale 1:250

JBM 1031-110.14 Rev B Indicative main delivery compound, scale 1:250

JBM 1031-101.17 Rev B Indicative main delivery compound, scale 1:250

JBM 1031-214 Rev A Perimeter Stock Proof Security Fencing (mammal friendly), scale 1:50

Transport Insights 2017 C264_1/6v1.1 Proposed L-5008 Passing Bay, scale 1:750 (referred to in Transportation Report 22/10/19).

3.6. Further Reports

3.6.1. Transportation – conditions.

3.6.2. Environmental Health Service – noting responses and recommending that a survey of wells be completed.

3.6.3. The second planning report, recommending a grant of permission, includes: each response is referenced and accepted.

3.6.4. The decision which issued is in accordance with the planning recommendation.

3.7. Third Party Observations

3.7.1. Third party observations on the file have been read and noted.

4.0 Planning History

306396 – current application made directly to the Board pursuant to the provisions of Section 182B of the Planning and Development Act 2000 (as amended) for the development of an 110kV electrical substation and associated 110kV infrastructure required to connect ground-mounted solar PV generation to the electricity transmission line near Milltownpass Co. Westmeath, within one of the segments of block one of the subject development.

303289 - pre-application consultation under Section 182E of the Planning and Development Act 2000, as amended, in relation to a proposed 110kV substation development in the vicinity of Clonfad, Co. Westmeath, which the Board determined to be Strategic Development.

Because of the geographic extent of the site there are various applications for residential and agricultural development, as referred to in the planner's report.

Pre-planning meetings 30/6/2016 and 3/10/2018 are referred to in the planner's report.

5.0 Policy Context

5.1. National and Regional

5.1.1. National Planning Framework

The National Planning Framework is the spatial plan for the state up to 2040 and includes:

National Strategic Outcome 8 – this recognises the need to harness both on-shore and off-shore potential from energy sources including solar. The following points are noted:

Green Energy

Deliver 40% of our electricity needs from renewable sources by 2020 with a strategic aim to increase renewable deployment in line with EU targets and national policy objectives out to 2030 and beyond. It is expected that this increase in renewable deployment will lead to a greater diversity of renewable technologies in the mix.

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

5.2. Regional Spatial Economic Strategy

The regional strategy (RSES) of the Eastern Midlands Regional Authority supports harnessing on-shore and off-shore potential from wind wave and solar and connecting the richest sources of that energy to major demand centres.

5.3. Guidelines

No national guidelines have been issued to date. The following are of relevance:

Planning and Development Guidance Recommendations for Utility Scale Solar Photovoltaic Schemes in Ireland (October 2016 report prepared by Future Analytics for the Sustainable Energy Authority Ireland / SEAI).

Planning guidance for the development of large scale ground mounted solar PV systems (British Research Establishment / BRE – 2016).

5.4. Development Plan

5.4.1. Westmeath County Development Plan 2014 – 2020 is the operative plan. Relevant provisions include:

(2.3) Strategic Aims - VIII. Supporting and promoting the growth and development of the renewable energy sector in the county.

(3.5) The Economic Development Strategy seeks to ensure that the potential of Westmeath is maximised in terms of sustainable economic development and employment generation. The Strategy centres on the following strategic principles:

To attract, support and enhance rapidly growing industry sectors such as ICT, renewable energy, pharmaceutical and medical technologies.

Chapter 10 Energy and Communications – includes the aim:

to support and provide for the development of indigenous energy resources, with an emphasis on renewable energy supplies.

(10.3) Renewable Energy

The development of alternative energy resources, replacing the need for conventional power plants, can help to conserve limited fossil fuel reserves, reduce environmental damage and slow the rate of climate change. The Council strongly supports all national and international incentives for limiting emissions of greenhouse gases and encourages the development of renewable energy resources.

The national target commits 40% of electricity from renewable resources by 2020 under the Government's publication "Building Irelands' Smart Economy – A Framework for Sustainable Economic Renewal (2008)".

(10.7) Solar Energy - Westmeath may be suitable for the development of solar power technologies.

It is the policy of Westmeath County Council:

(P-CC1) To support the implementation of the National Climate Change Strategy and to facilitate measures which seek to reduce emissions of greenhouse gases.

(P-EN1) To promote renewable forms of energy where it is consistent with the proper planning and sustainable development of an area.

(P-EN2) To support local, regional, national and international initiatives for limiting emissions of greenhouse gases through energy efficiency and the development of

renewable energy sources which make use of the natural resources in an environmentally acceptable manner, and having particular regard to the requirements of the Habitats Directive.

(P-EN3) To favour the use of renewable energy as a contribution to the energy demand of all new buildings.

(P-EN4) To support the National Climate Change Strategy and, in general, to facilitate measures which seek to reduce emissions of greenhouse gases.

(P-EN5) To support the sustainable development of the infrastructure required to assist the Midland Region in the delivery of renewable energy, particularly in the context of the need to make a transition from peat to renewable energy.

(P-ELE4) To co-operate and liaise with statutory and other energy providers in relation to power generation, in order to ensure adequate power capacity for the existing and future needs of the county

(P-ELE6) To support and facilitate the development of enhanced electricity and gas supplies, which do not negatively impact on environmental quality, landscape, wildlife, habitats or residential amenity and which are critical to the economic development of the county.

It is an objective of Westmeath County Council:

(O-REN3) To identify suitable locations for strategic renewable energy projects in the county within two years of adoption of the plan.

5.5. Development Contribution Scheme

5.5.1. The Westmeath Co Co development Contribution Scheme 2013-2020 at Table 2 ‘levels of contributions’ includes, at F - ‘Wind Turbines and other renewable energy installations generating more than 0.5 MW’ the amount of the contribution being €1,000 per 0.1MW.

5.6. Natural Heritage Designations

5.6.1. The nearest Natura site is: Mt Heavey Bog SAC 002342, located c 6 km to east.

5.6.1. The River Boyne & River Blackwater SAC and SPA are the closest Natura sites with linkage to the subject site, 7.59km direct line distance and 18.4km downstream.

5.6.2. The closest site with a natural heritage designation is the Milltownpass Bog NHA, which is located c. 300m to the west of Block 1.

5.7. EIA Screening

5.7.1. Appendix C of the submitted Planning & Environmental report refers to EIA Screening.

5.7.2. The proposed development is not of any type included in Schedule 5 of the Planning and Development Regulations 2001 (as amended), i.e. development for which mandatory EIA is required nor is it integral to any project that is of a type included in Schedule 5. Having regard to the characteristics of the development and the characteristics of the location, there is no real likelihood of significant effects on the environment arising from the development. The need for environmental impact assessment can, therefore, be excluded at preliminary examination and a screening determination is not required.

6.0 The Appeal

6.1.1. There are two third party appeals against the planning authority's decision to grant permission, and a first party appeal against condition no. 2 of the decision.

6.2. Third Party Appeals

6.2.1. Third Party Appeals have been received from: Sharon Griffith, Hightown, Coralstown; and Geraldine McDermott & others.

6.2.2. The Sharon Griffith grounds of appeal can be summarised as:

- Impact on view from kitchen window, development is in adjoining field; loss of light; glare. Requests this field to be excluded.
- Injustice to the community in the absence of national guidelines.
- Unknown health risks and scale of development, such as radio frequency radiation.
- Damage to the character of the countryside, landscape and visual amenities of the area.

- Risk of woodland going on fire.
- Concerned that adjoining stream and private well water supply might be affected, if the security of this well cannot be guaranteed, wants a guarantee to be connected to mains supply at no charge.
- Concern that CCTV cameras are not pointed towards house or back garden.
- No compensation to the community for such a large scale development. Permission should be for a smaller scale development and developer should compensate community such as:
    - Providing broadband
    - Maintaining and make good roads
    - Speed restrictions such as speed bumps,
    - Houses with private wells being put on the mains at no expense.
    - Photos of the appellant's house and its proximity to the site are provided.

6.2.3. The Geraldine McDermott & others grounds of appeal can be summarised as:

- Lands in her late father's ownership (Malachy Dardis), which is in the course of being transferred to future beneficiaries (of whom Ms McDermott is one), have been included in the application site; she wishes the Board to note the cable route through this land.
- Concerned at the scale of the development in this rural area, its impact on rural character, it's industrial nature and impact on residential amenities and property, and effect on landscape. Wind and solar developments should be located in bogs.
- Contrary to the development plan which refers to balancing growth while protecting the natural environment and safeguarding biodiversity.
- Attached to the grounds is a letter from the Property Registration Authority, dated September 2019 and a map, which refers to an error which occurred in relation to the registration of folio WH20248; and which they state they have corrected in favour of Malachy Dardis.

6.3. First Party Appeal

6.3.1. Tom Phillips & Associates have submitted an appeal on behalf of the applicant, against condition no. 2, which includes:

- Condition no. 2 is in error and should reflect the 30 year life of Solar PV development, rather than 10 years, and this is in line with permissions granted by WCC and An Bord Pleanála.
- Extracts from the application details and a table of developments and decisions, with extracts from those decisions, on solar farm development, are submitted in support of the appeal.
- In correspondence WCC have accepted that it is a clerical error but will only correct the error in a final grant.
- A suggested wording is provided.

6.4. Applicant Response

6.4.1. Tom Phillips & Associates have submitted a response to the Sharon Griffith appeal on behalf of the applicant, which includes:

- Impact on view from kitchen window:
- Response:

  A 22m setback from dwellings was accepted by the Board previously in PL26.244351. A setback of 50m is proposed, and in the case of the dwelling the proposed panels are significantly in excess of 50m distance. The field is already screened by existing trees, shrubs and a c2m high shed. Only the southern portion of the developer's property is visible from inside the house. The current view is across an agricultural field traversed by power lines and a number of agricultural buildings. It is not considered to be particularly picturesque and the appellant's do not own the field.

  Mitigation proposed: section 1.3 of the Landscape and Visual Impact Assessment – retain existing hedges and plant a thick native hedgerow (type 2) to prevent long-term views of the proposed panels and / or hedgerows. This hedge type has been selected as it provides a dense screening at eye

level, i.e. up to 1-2m. Above this the canopy of hedgerow is less densely populated, to allow sunlight through. In addition a wild grass seeding buffer zone will be provided as shown in Figure 2.3 of the response (extract from Dwg. LD.CLNFD 1.2).

- Glare:

  Response:

  Section 3,3 of the Planning and Environmental Report and section 1.3 of the Glint and Glare Assessment are cited. This house is no. 65 in that assessment. Per appendix 1 of the assessment, although there is potential for some minor impacts of glint and glare, the proposed landscaping mitigation will alleviate and will ensure that there is no adverse impact.

- Lack of national guidelines:

  Section 5.1 of the Planning and Environmental Report and section 5.3.10 of the Planning and Environmental Report, are cited.

  Many planning applications for large-scale solar PV developments have been submitted and assessed by various planning authorities and An Bord Pleanála. The assessment of those applications provides useful guidance and precedent, which have been considered as part of this planning application.

- Assumed health risks:

  Section 3.4 of the Planning and Environmental Report is cited.

  It is confirmed that there will be no health risks from power-frequency electric and magnetic fields, at levels in excess of those people are exposed to in the environment.

- Inappropriate scale:

  Section 2.2 of the Planning and Environmental Report is cited.

  The hedgerows and trees provide significant screening which can be further supplemented by planting. The development complies with the WCC development plan. It will not have a detrimental impact on residential amenity, ecology, local hydrology, traffic, archaeology, landscape character or views in the area. As it facilitates the creation of a renewable and sustainable form of

energy, it is a project of national importance in line with the overarching themes of the National Planning Framework.

- Fire Risk:

  Section 2.6 of the FI Response, is cited.

  There is no risk of fire from the type of solar panels proposed.

- Water Quality

  Section 3 of the Drainage Report, and Section 4.1 of the Ecological Impact Assessment, are cited.

  Surface Water drainage will continue to be accommodated by the existing drainage network. The solar farm is designed to minimise the effect on the original drainage and infiltration pattern of the site. The proposed development will have no impact on the quality of water received from the appellant's private well.

- CCTV cameras:

  Section 4.1.6 of the Planning and Environmental Report is cited and condition no. 9 of the PA's decision.

  Final details relating to the erection of CCTV cameras are to be agreed with WCC.

  With reference to the appellants reference to a 10 year duration, the first party appeal is referred to; and the mistaken wording of 10 years in lieu of 30 years.

- Community compensation.

  Condition no 21 – the development contribution is €1 million. This significant contribution will be used towards public infrastructure and facilities which will benefit the wider area. Regarding a specific Community Benefit Scheme, this will not be provided as part of the planning permission but will be implemented subject to the Renewable Energy Support Scheme, which will provide an enabling framework for community participation in renewable energy projects. Once this fund is created it will be decided by the local community how it is implemented.

6.4.2. Tom Phillips & Associates have submitted a response on behalf of the applicant to the Geraldine McDermott & others appeal, which includes:

- Ownership

  Mr Declan Hughes has in good faith provided a letter of consent to the applicant to include these lands as part of the application site, as lands within his ownership. Mr Hughes and his father before him have farmed this land as part of their wider landholding for over 40 years and were unaware of any dispute in relation to the ownership, until raised by the appellant. He considers that he is the owner and should be registered as such in the case of any legal dispute. Access to this land is provided through Mr Hughes' landholding. The appellant did not raise this issue, although she made an observation to Westmeath County Council. The application is valid. Section 34 (13) would apply. There is no reason that ABP cannot continue with determination of the appeal.

- Site and location

  Many of the other issues raised are similar to those raised in the Sharon Griffith appeal and the Board is referred to the responses to that appeal.

Attached to the response is a copy of the observation made by Ms McDermott to Westmeath County Council.

6.5. Observations

6.5.1. The Board received two observations on the appeals.

6.5.2. Christopher Brennan, on behalf of the Brennan family, has submitted an observation, which includes:

- Concern about disruption during construction due to the vast and dispersed scale of the site and also for maintenance.
- Concern about impact on and disturbance to wildlife.
- The use and control of chemicals is left at the discretion of the developer and there should be more rigorous independent supervision than is suggested in section 4 of conditions.

- Concern regarding the cluster of houses on the L1007 and proximity to the 110kV loop substation and the residual electricity (EMF field). There is plenty of bog land close to the substation where the substation could have been located. If more land is made available the voltage of the substation could be increased; thereby increasing concern re. health and property value.
- They request a moratorium until guidelines are in place on monitoring, installation, maintenance and long term operation of solar developments.

6.5.3. Rachel & Henrietta Leech have submitted an observation which includes:

- They are concerned about traffic safety and convenience and poor unsuitable access roads. Road foundations are unlikely to withstand the increased construction traffic; together with the installation of cabling and ducting.
- They use the L5007 / L5008 for school runs and the proposed passing point on their lane will not adequately address the limited passing width.
- They are concerned regarding maintenance traffic and particularly with regard to their outdoor dogs who are trained around livestock and function as watch dogs when cars approach.
- Concern about impact on wildlife and particularly from construction traffic, change of use of land and the expanse of structures.
- Concern about glare, particularly on the hill approaching Hightown Cross from the L5007.
- Concerned about detrimental visual impact and condition 4(a) is quoted ‘Security fencing should be readily visible…’; and the scale of the impact.
- Concern about as yet unknown health and safety effects; also how will emergency vehicles access the site.
- Noise and light pollution in this quiet area and external lighting, point 8 of the schedule, is unclear.
- Concern about scheme closure, will owner walk away, will destruction of wildlife be repeated.
- Concern about watercourse near their home, accidental spillage and use of pesticides and sprays, notwithstanding point 14 of schedule.

- Concern about archaeology, proximity to St Etchen's tomb, and 5b which requires the National Monuments Service to be contacted 'if necessary'.
- Property value – their house was the land steward's residence for the Clonfad estate. It is insulting to suggest that it would not be devalued.
- Various development threats to the area, which have arisen over time, are referred to, and the observers are concerned at further threats at the end of the ten year period.
- Project should be put on hold until guidelines are produced.
- They question how they can trust that they would have any environmental protection if accidental spillages arise; and in this regard they cite the change of ownership within weeks of the decision.

7.0 **Assessment**

7.1.1. The issues which arise in relation to this appeal are: appropriate assessment, policy context and principle of the development, landscape and visual impact, rural character of the area and residential amenity, traffic impact, natural heritage, glint and glare, archaeology, lifespan of the development and other issues and the following assessment is dealt with under these headings.

7.2. **Appropriate Assessment**

7.2.1. Appropriate Assessment Screening

7.2.2. The application was accompanied by a Stage 1 AA Screening Assessment report attached as an appendix to the Ecological Impact Assessment submitted. It describes the statutory context, the project, the site, zone of influence and potential impacts. The report concludes that there will be no direct, indirect or in-combination effects on the qualifying interests of Natura 2000 sites from the project and no significant impacts on the conservation objectives of any Natura 2000 sites and that AA of the of the potential impacts on the integrity of Natura 2000 sites is not required.

7.2.3. The proposed development comprises:

- solar photovoltaic (PV) panels on ground mounted frames/support structures;
- underground cabling and ducting including along the R446, the L1007 and the L5008;
- 40 No. inverter/transformer units;
- storage & control and buildings;
- site perimeter (stock-proof) security fencing (mammal friendly);
- CCTV security cameras;
- new construction site entrance and road crossing point on the L5008 and widening of this local road to the R446, road crossing point on the L5009, upgraded access points and internal site access tracks comprising crushed stone; section of asphalt road widening along the L5008 north of the R446, to facilitate construction access;
- landscaping including screen planting;
- all associated site development works; and
- 5 temporary construction compounds.

7.2.4. The proposed development is not within a European site and the works are not relevant to the maintenance or management of any such sites.

7.2.5. The following European sites are located in the vicinity of the site:

European Site	Site Code	Relevant QIs & CIs	Distance
Lough Ennell SAC	000685	Alkaline fens,	9km
Lough Ennell SPA	004044	Pochard, Tufted Duck, Coot, Wetland and Waterbirds	9.4km
Lough Owel SAC	000688	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp., Transition mires and quaking bogs, Alkaline fens, White-clawed Crayfish	12.1km

Lough Owel SPA	004047	Shoveler, Coot, Wetland and Waterbirds	12.1km
Mount Hevey Bog SAC	002342	*Active raised bogs, degraded raised bogs, rhynchosporion depressions.	4.94km
Raheenmore Bog SAC	000582	*Active raised bogs, degraded raised bogs, rhynchosporion depressions.	12.1km
R Boyne & R Blackwater SAC	002299	Alkaline fens, Alluvial forests (with Alnus glutinosa and Fraxinus excelsior), River Lamprey, Salmon, Otter	7.6km overland >18km downstream
R Boyne & R Blackwater SPA	004232	Kingfisher	7.6km overland >18km downstream
Scragh Bog SAC	000692	Transition mires and quaking bogs, Alkaline fens, Slender Green Feather-moss	14.3km
Split Hills & Long Hill Esker SAC	001831	Semi-natural dry grasslands and scrubland facies on calcareous substrates (* important orchid sites)	14.5km
Wooddown Bog SAC	002205	Degraded raised bogs	6.4km

7.2.6. The construction phase of the proposed development would include site preparation works, including a moderate amount of site clearance and excavation works which have potential to effect the water quality of the drains and streams in the vicinity of the work. There is hydrological connectivity between the site and the European sites R Boyne & R Blackwater SPA and R Boyne & R Blackwater SAC, 18.4km via downstream. One stream crossing (Kinnegad Stream) will be required to facilitate access to the north-western portion of Block 1. There is an existing metal bridge at the proposed crossing point and this will be replaced / upgraded with a clear span

bridge. There will be no instream works or alterations to any watercourses as a result of the proposed development. No ground levelling works are proposed.

7.2.7. As pointed out in the Ecological Impact Assessment in a 'do nothing' scenario the fields would be subject to occasional ploughing, re-seeding, fertiliser and weed spraying which would represent a much higher and repeated risk than the relatively minor earthworks associated with the proposed development. The potential for siltation / contamination of watercourses as a result of the development is considered low, no indirect habitat loss / deterioration effects through siltation are expected to watercourses and associated designated sites downstream.

7.2.8. In terms of ecological connectivity, as noted in the screening report, there are three SPAs within 15km: Lough Ennell SPA, Lough Owel SPA and the River Boyne & River Blackwater SPA. The qualifying species of these SPAs, waterfowl at Lough Ennell SPA, Lough Owel SPA and Kingfisher at the River Boyne & River Blackwater SPA, are dependent on aquatic habitats which are not present at the proposed site. There are no lakes at the proposed site, and watercourses are too small to support breeding Kingfisher. It should be noted that Kingfisher was recorded in the site survey, Kingfisher are widespread in Ireland, and are resident on streams, rivers and canals. Although it is a species of Special Conservation Interest of the River Boyne & River Blackwater SPA, other sites where breeding Kingfisher would be likely to occur, such as the Royal Canal pNHA, are closer than the protected site to the subject site.

7.2.9. Other ex-situ disturbance impacts, where highly mobile species from the designated sites may occur at the development site to forage or commute, are considered in the application submissions. Although otter is a mobile species and may forage along the watercourses in close proximity to the area, it tends to favour larger watercourses and no evidence of Otter was found in the field surveys. River Lamprey (present in the lower reaches of the Boyne River) and Salmon are species of community interest of the River Boyne & River Blackwater SAC. Inland Fisheries Ireland have made no observation on this application which was referred to them (per the initial planner's report). At its nearest, in the vicinity of Longwood, Co Meath, the SAC is more than 18km downstream of the subject site. I concur with the Screening Assessment provided on behalf of the applicant, that no ex-situ impacts on species from designated sites are likely.

7.2.10. All the other above listed sites, ie. apart from those referred to in paragraphs 7.2.6 to 7.2.9, can be ruled out because of lack of hydrological or ecological connectivity.

7.2.11. Although a separate application, the proposed substation is included in the Ecological Impact Assessment and the Screening Assessment report attached as an appendix to the Ecological Impact Assessment submitted with the subject application and the cumulative or in-combination impacts are included. This is a rural area with limited development other than agricultural development and one-off housing and no other cumulative or in-combination effects are envisaged. Therefore in my opinion, a screening determination may be made, in relation to the site, that stage II appropriate assessment is not required.

7.2.12. 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 European Site No. 002299 and 004232, or any other European site, in view of the site's Conservation Objectives, and that a Stage 2 Appropriate Assessment is not therefore required.

7.3. Policy Context and the Principle of the Development

7.3.1. Renewable energy development is supported 'in principle' at national, regional and local policy levels, with collective support across government sectors for a move to a low carbon future and an acknowledgement of the need to encourage the use of renewable resources to reduce greenhouse gas emissions and to meet renewable energy targets set at a European Level. National Policy Objective no. 55 of the National Planning Framework is to promote renewable energy use and generation at appropriate locations within the built and natural environment. It is also an action of the NPF under National Policy Objective no. 8 to reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres. At a local level Westmeath County Development Plan 2014-2020 (chapter 10) supports the provision, of renewal energy infrastructure within the County.

7.3.2. The proposed development is located on agricultural lands that are outside of a designated settlement. Although there is no national guidance in relation to solar

energy developments, there is policy support for this type of development at national, regional and local policy levels and I am satisfied that the proposed development is suitably located and is acceptable in principle.

7.4. Landscape and Visual Impacts

7.4.1. The Landscape Character Assessment for County Westmeath is set out in Annex 4 of the Development Plan. Of the 11 landscape types identified in the landscape character assessment map this site is within area 10: Lough Ennell and South Eastern Corridor. Each landscape type has varying capacity to absorb development related to its overall sensitivity. Protection based on landscape extends to the area of High Amenity, at Lough Ennell and a number of preserved views listed from the R446 between Tyrrellspass and Rochfortbridge. No particular protection applies to the subject site.

7.4.2. A Landscape and Visual Impact Assessment is provided with the application. The assessment of landscape impact includes a computer generated zone of theoretical visibility (ZTV) map (bare ground) (Fig 11) and a computer generated digital surface model (DSM) map (Fig 12), to illustrate where the proposed development is potentially visible, and where it would be likely to be visible. Mitigation using planting is proposed, either inter planting and under planting where existing perimeter hedgerows require consolidation; new hedgerow perimeter planting where feathered whips, holly and advanced nursery stock will be planted; or whip planting with holly to provide screening longer term and the impact of this on the visibility in the landscape is indicated (Fig16). Areas of visibility are limited and further reduced by mitigation, and the extent of panels visible from areas where there is any visibility, is largely between 1 and 20%.

7.4.3. Viewshed Reference Points (13 no.) are used to indicate the views of the proposed development, showing the impact of mitigation planting, where proposed. The viewpoints are scattered throughout the solar farm site and the montages include views post mitigation.

7.4.4. The Landscape and Visual Impact Assessment concludes that the solar development is not considered to give rise to any significant residual impacts and is

very well screened or otherwise well assimilated within the prevailing landscape pattern.

7.4.5. In my opinion landscape impact and visual impact will not be significant and landscape or visual impact should not be reasons to refuse or modify the proposed development.

7.5. Rural Character of the Area and Residential Amenity

7.5.1. A Noise Assessment was submitted with the application. Construction stage noise will be significantly less than routinely applied to TII schemes. Operational noise sources considered are inverters and transformers and the substation (separate application). Predicted noise level at the closest receptor to the inverters and transformers, will not exceed 38dB(A) at the façade of the receptor, and will be below the permissible night time limits during day time; the noise sources will not operate at night.

7.5.2. No artificial lighting is proposed, and should not be installed or operated on site without a prior grant of planning permission.

7.5.3. I am satisfied that the proposed CCTV cameras would not impact on the amenities of properties in the vicinity. As proposed they are fixed and angled to face into the site and not directed towards the road or nearby houses. This can additionally be addressed by way of a planning condition.

7.5.4. There is concern regarding the impact on a view from a kitchen window. The applicant's response is that a 22m setback from dwellings was accepted by the Board previously (in PL26.244351), a setback of 50m is proposed, and in the case of the subject dwelling the proposed panels are significantly in excess of 50m distance; the field is already screened by existing trees, shrubs and a c2m high shed; only the southern portion of the developer's property is visible from inside the house; the current view is across an agricultural field traversed by power lines and a number of agricultural buildings.

7.5.5. In my opinion there is sufficient setback of development in all cases to ensure the protection of residential amenity.

7.5.6. Health risks are a concern of one third party. The applicant in response confirms that there are no health risks associated with solar panel developments.

7.5.7. In my opinion the rural character of the area and residential amenity should not be reasons to refuse or modify the proposed development.

7.6. Traffic Impact

7.6.1. The proposed development would be located along a local county road (L1002) and is adjacent to the entrance to an existing 110kv substation. The adjacent substation and several agricultural and residential sites have direct access to this road.

7.6.2. The site will be accessed from the L1002 via an existing agricultural access that will be upgraded to accommodate HGV traffic.

7.6.3. The application was accompanied by a Transport Assessment and further information in relation to traffic impact was provided in response to the planning authority's further information request.

7.6.4. The transport assessment outlines the rationale for the access arrangements: to reduce the proposed development's construction traffic impacts by limiting the amount of narrow local roads that need to be traversed by HGV's. It demonstrates, by survey, the low level of background traffic (1,442 AADT for the R446 and 196 AADT for the L5008); and from the TII Publication: Rural Road Link Design (DN GEO – 03031) gives the estimated capacity of the R446 as 8,600 AADT and the L5008 as 5,000 AADT. The forecast construction traffic of 131-132 HGV trips weekly at maximum during weeks 15 - 16 and 67 two way HGV trips (12 two way daily) on average, is substantially below capacity and there is adequate capacity for the proposed construction traffic.

7.6.5. The report states that the construction/installation phase would take c.36 weeks. The operational phase will involve limited traffic movements.

7.6.6. Observers are concerned about traffic safety and convenience and poor unsuitable access roads; that road foundations are unlikely to withstand the increased construction traffic; together with the installation of cabling and ducting. The issue of disruption on local roads during construction has been raised by several parties.

7.6.7. The use of local roads is minimised in the proposed construction routes. Local and regional roads to be used have been examined and are shown to have capacity.

7.6.8. The planning authority's decision included a condition (12 (d)) requiring the carrying out of a road condition survey prior to commencement of development and a post construction survey, with any damage which arises to the public road being rectified. The Board may consider such a condition suitable if minded to grant permission.

7.6.9. The effects of construction traffic on the operation of the L1002 and L5008 in particular, and on all other local roads and the regional road would be acceptable in terms of traffic safety and convenience, given the temporary nature of the impact. Having regard to the nature and scale of the proposed development along with the remote monitoring and infrequent maintenance visits, I am satisfied that the proposed development during the operational phase would not give rise to a significant increase in vehicle movements. The decommissioning phase would have less impact than envisaged during construction having regard to the fact that the associated substation is not time limited.

7.6.10. Having regard to the predicted levels of traffic generation during the construction, operational and decommissioning phases, I am satisfied that the proposed development is acceptable in terms of traffic safety and the protection of the rural character of the area. In the event that the Board is minded to grant permission, I recommend that a condition is included requiring a detailed traffic management plan to be prepared and agreed with the planning authority in advance of any works.

7.6.11. Having regard to the above, I am satisfied that traffic generated during the construction, operational and decommissioning phases would not give rise to a traffic hazard or endanger the safety or impact unduly on the convenience of other road users.

7.6.12. In my opinion traffic impact should not be a reason to refuse or modify the proposed development.

7.7. Natural Heritage

7.7.1. A 200mm high void at the base of the fence will provide access for mammals. There will be minimal removal of hedgerow (380m) and the proposed landscaping includes

the creation of 2,674 linear metres of new hedgerow which will enhance overall habitat and species diversity.

7.7.2. Under lower intensity management there is the potential for an increase in flora species diversity over time potentially benefitting fauna at the site.

7.7.3. Two red listed bird species of high conservation concern were recorded at the site: Meadow Pipit and Yellowhammer.

7.7.4. Yellowhammer are associated with hedgerows and cereal crops in the wider area. In response to the request for further information the applicant states that this site is located within a landscape dominated by Complex Cultivation Patterns indicating that arable crops are widespread in the wider area. The site includes areas of arable crops, one of which comprises cereal crops which is a potential source of food for Yellowhammer. Production of arable crops will cease, resulting in the loss of 6.8ha of cereal crops. The proposed landscaping includes the creation of 2,674 linear metres of new hedgerow which will enhance overall habitat and species diversity. This, combined with the management of field margins to promote wildflower / wild seed meadows, will enhance the quality of Yellowhammer breeding habitat at the development site and is in accordance with accepted guidelines for this species. The area of new wild grass / cereal meadow >10ha, will offset the loss of cereal habitat. The proposal will have a neutral to slight positive impact on Yellowhammer.

7.7.5. Meadow Pipit is likely to be associated with wet grassland in the wider area. In response to the request for further information the applicant states that Meadow Pipit is a widespread breeding species in Ireland. They breed in bogs and upland areas of scrub and pasture. Optimal breeding habitat is a mosaic of heather, bog and grassland; with intensive grazing by livestock negatively associated with the species. Population decline occurred as a result of two severe winters 2009/2010 and 2010/2011. Since the publication of the BoCCI Red-list in 2013 the population of this species has substantially recovered, demonstrated by the graph supplied at Figure 2.1 of the report. The site contains some areas of semi-natural wet grassland habitat which could be used by breeding Meadow Pipit, in fields towards the south western boundary (block 2) and within the far eastern section (block 1). An area of wet grassland is also present towards the northern section (block 1) and towards the north west. Small areas of semi-natural grassland will be directly impacted: two

inverter / transformer stations will be located within wet grassland habitat resulting in the loss of 30m^2 of wet grassland habitat. Placement of solar panels in other areas of wet grassland habitat is not expected to exclude Meadow Pipit from using this habitat. Under lower intensity management there is the potential for an increase in flora species diversity over time, potentially resulting in an increase in suitable habitat (rough grassland) for Meadow Pipit at the site. The proposed landscaping plan includes the planting of wild grass seed mix along the margins of the site, which will further increase the available habitat for Meadow Pipit, where previously improved grassland dominated the field margins. Potential impacts on Meadow Pipit are neutral to slight positive.

7.7.6. The observation from the Department of Culture, Heritage and the Gaeltacht expresses concern that the loss of wetland habitat, as identified in the EIA, will most likely negatively impact on the breeding success of Meadow Pipits in that habitat. They were recorded in that habitat in the EIA. This is an amber listed species (per Birds of Conservation Concern in Ireland (BCCI)).

7.7.7. Birdwatch Ireland's website currently states the status of Meadow Pipit as 'one of the commonest bird species in Ireland'. I am satisfied that the account of the population decline, given on behalf of the applicant, is accurate, and that the amber listing is historic rather than current. I am satisfied that the proposed development will not negatively affect this bird species.

7.7.8. A Kingfisher was recorded in the field survey. The EcIA notes that Kingfisher are dependent on aquatic habitats which are not present at the proposed site. There are no lakes at the proposed site, and watercourses are too small to support breeding Kingfisher.

7.7.9. I accept this assessment. In my opinion impact on bird species should not be a reason to refuse or modify the proposed development.

7.7.10. Bats were recorded foraging within the site. One suitable bat roosting structure was identified and there are several mature trees that have some potential to provide occasional roosting opportunities. Hedgerows and treelines offer suitable foraging and commuting habitat for bats. There will be no removal of mature trees or other suitable bat roosting habitat, no effects on roosting bats are expected. The hedgerows and treelines provide suitable foraging habitat for bats and these will be

left in situ, except for the removal of 380m, and any loss will be offset by the planting of 2,674m of new hedgerow of native trees / shrubs. Potential effects on bats is expected to be neutral to slightly positive.

7.7.11. Milltownpass Bog NHA is located c. 300m to the west of Block 1. The Department of Culture, Heritage and the Gaeltacht submitted an observation expressing concern that Milltownpass Bog could be negatively impacted by increased drainage of the peatland as a result of a significant increase in the number and weight of vehicles using the L1007 which runs along Milltownpass Bog NHA, resulting in increased road maintenance such as roadside drainage, which could alter the hydrology of the bog. The Transport Assessment is not proposing the use of L1007 during construction and projected usage during the operational stage will be limited to several LGV's a month. This should be made a condition of consent.

7.7.12. The construction route accesses the site from the east where it travels west along the L1007 from its junction with the L5008. The levels shown on historic mapping for the area (eg. historic 25 inch) show that the fall along the road is towards the Kinnegad stream ie. from north-east to south-west. The level at the junction (of the L1007 and L5008) is 301ft and near the river is 292ft. West of the river the road rises towards the bog. The Kinnegad stream to the west of the site provides a hydrological divide between the construction route and the protected bog. Any additional drainage arising as a result of construction impact of the development would not impact on the bog's hydrology since the road drainage is towards the bog, intercepted by the river.

7.7.13. Eskers are not referred to in the reports / assessments submitted with the application. The esker referred to in the report of the Environment Section of Westmeath Co Co, is at the north of the site. Another esker is located in Clonfad townland near Knockwilliam.

7.7.14. The aerial photography available on the OSI.ie website, shows that in 1995, within the subject lands at the northern end of the site, an upstanding sinuous feature ran across a field in the north west of the site, in a north west to south east direction, which was part of a formation extending eastwards in an east west direction. This is apparently the esker identified in the survey. A comparison of the aerial photography for 1995 and 2000 shows that the feature had been removed in the intervening period. An indication of its course is still visible on aerial photography, but it appears

to no longer exist as an upstanding feature. Development which will occur in this area is shown on drawings numbered JBM 1031-101.4 and JBM 1031-101.5. As noted in the Westmeath Co Co, Environment Section report this feature was identified in the esker survey carried out for Westmeath County Council in 2006 as an action of the Westmeath Heritage Plan and the report is available on their website; but it is not on the document 'The Geological Heritage of County Westmeath' published in 2019 and also available on their website. Another feature which is identified in the esker survey is in Cloonfad townland but is largely outside the subject site. It can be found at Knockwilliam (drg no 101.12) where the site boundary follows the field boundary and the edge of the esker. This esker which remains intact, and will not be impacted by the proposed development, is not listed in the document 'The Geological Heritage of County Westmeath'.

7.7.15. In my opinion the proposed development would not impact adversely on natural heritage and natural heritage should not be a reason to refuse or modify the proposed development.

7.8. Glint & Glare

7.8.1. A Glint & Glare Assessment is presented with the application. It follows a methodology of: digital terrain modelling (DTM) (landform only), followed by digital surface model (DSM) taking account of screening by buildings or vegetation (based on the screening at the time of data capture), supplemented by Google street view, and ground truthing by site visit. Where instances of glint and glare remain, the consultants determines whether they are likely to cause hazard / nuisance and if necessary mitigate by re-siting the panels and / or provision of additional screening.

7.8.2. The report includes an assessment of impact at 531 road receptor points (points are taken every 100m) and at 194 dwelling receptors. Table 3 and appendix D set out the results for the road points analysed. Table 2 and appendix C set out the results for the dwellings analysed.

7.8.3. Table 2 sets out, for dwellings, the theoretical reflectance based on DTM (column 1), potential reflectance based on DSM (column 2), and the magnitude of impact (column 3). Of the relatively few houses with potential to experience glint and glare

when existing screening and mitigation are taken into account, the magnitude of impact is low in 1 instance and otherwise very low or none.

7.8.4. The impact of glare has been raised as a concern in a third party appeal. The applicant response states that this house is no. 65 in section 1.3 of the Glint and Glare Assessment and, per appendix 1 of the assessment, although there is potential for some minor impacts of glint and glare, the proposed landscaping mitigation will alleviate and will ensure that there is no adverse impact.

7.8.5. House numbered 65 in section 1.3 of the Glint and Glare Assessment is divided into two levels. In the case of level one with mitigation no glare will be experienced. In the case of level two notwithstanding mitigation, glint and glare could potentially be experienced for an average of 4 minutes over a period of 131 days. In my opinion this is acceptable.

7.8.6. Table 3 sets out, for road points, the theoretical reflectance based on DTM (column 1), potential reflectance based on DSM (column 2), and potential reflectance after existing screening and proposed mitigation measures are accounted for (column 3). There are very few instances in the third column. Reflectance could be experienced along sections of the M6, shown in appendix D as points R446 to R451 and R439 to R459, where the impact is removed with the proposed mitigation which is added screening. Other road locations are identified where post mitigation there will be some residual impact.

7.8.7. TII have observed that in the absence of mitigation, a number of road receptors along the M6 have been identified as being subject to potential impacts (R439 to R446 and R451 to R459); it is critical that mitigation is effective to address the potential impacts identified. The planning authority decision includes a condition (no. 13) to address this issue. I consider that a similar condition should be attached, should the Board be minded to grant permission.

7.9. Archaeology

7.9.1. The Archaeological Assessment Report identifies two recorded monuments and five potential archaeological features located close to the two recorded monuments and a circular feature of archaeological potential and also a possibility that previously unknown archaeological sites, with no surface expression, remain present.

7.9.2. Department of Culture, Heritage and the Gaeltacht, in an observation on the application recommended that they should be investigated by means of geophysical survey followed by archaeological test trenching in advance of a decision. In correspondence with Westmeath County Council, the Department agreed to these measures being attached by condition.

7.9.3. Concerns have been raised regarding historic structures and archaeological heritage, the proximity to St Etchen's tomb, and the condition which requires the National Monuments Service to be contacted 'if necessary'.

7.9.4. There are recorded monuments in the vicinity of the site including those near the most eastern block: WM027-067002 monastery, WM027-067001 moated site, WM027-067001, WM027-066002 and WM027-067005, church site, and WM027-066004, burial site (St Etchen's tomb) in the townland of Rattin but not within the subject site. Also worthy of note is a remnant of what appears to have been a tree lined avenue between the townlands of Lowtown and Clonfad, where a double line of mature trees survives from a longer double line. This is within the subject site but will not be impacted by the proposed development.

7.9.5. The Archaeological Assessment, submitted with the application states that archaeological monitoring will take place. The Department of Culture, Heritage and the Gaeltacht advise that further prior to commencement surveys should take place in addition to monitoring. The planning authority's decision included a condition (no 5) which required further prior to commencement surveys within areas identified as having archaeological potential, together with monitoring, in all other areas. The Board may consider that a similar condition should be attached, if minded to grant permission.

7.10. **Lifespan of the Development** - **condition no. 2; and implementation period.**

7.10.1. The first party has submitted an appeal condition, no. 2, which states that the permission is for a period of 10 years from the date of the commencement of the development.

7.10.2. A post decision memo from the Executive Planner to the District Manager indicates that the planning authority accepts that the 10 years referred to in the condition is a typographical error and that the requested life of 30 years would not be an unusual

time period as 6 other solar farms, granted permission in Westmeath, have a lifespan of 25 years from commissioning or commencement.

7.10.3. The application is for a 10 year permission, which means that the applicant is seeking a period of 10 years to implement the development. Thereafter an operational lifespan of 30 years is sought.

7.10.4. The proposed development is a very large solar farm that extends to 260 hectares. In my opinion both time periods sought are reasonable. In relation to the condition therefore, it is considered that condition no. 2 should be revised, and that the operational lifespan of the development should be for 30 years.

7.11. Other Issues

7.11.1. Ownership of a parcel of land has been raised in one of the third party appeals. Geraldine McDermott states that lands in the ownership of her late father (Malachy Dardis), which is in the course of being transferred to future beneficiaries, of whom Ms McDermott is one, have been included in the application site; she wishes the Board to note the cable route through this land.

The applicant's response states that Mr Declan Hughes has in good faith provided a letter of consent to the applicant to include these lands as part of the application site, as lands within his ownership. Mr Hughes and his father before him have farmed this land as part of their wider landholding for over 40 years and were unaware of any dispute in relation to the ownership, until raised by the appellant. He considers that he is the owner and should be registered as such in the case of any legal dispute. Access to this land is provided through Mr Hughes' landholding. The response states that the appellant did not raise this issue, in an observation to Westmeath County Council. They state that the application is valid and Section 34 (13) would apply. They consider that there is no reason that the Board cannot continue with determination of the appeal.

In my opinion the matter is not one on which the Board can come to any conclusion and such a situation is covered by Section 34 (13) of the Planning and Development Act 2000, which states: 'a person shall not be entitled solely by reason of a permission under this section to carry out any development.'

7.12. The absence of national guidelines has been raised as an issue, with parties requesting refusal of permission pending the adoption of national guidelines. The absence of national guidelines is not a reason for refusal.

7.12.1. Fire risk has been raised as an issue. The Fire Officer report raises no particular concerns in this regard. The applicant's response is that there is no risk of fire from the type of solar panels proposed.

7.12.2. In my opinion the issue of fire risk is not a reason to refuse or modify the proposed development.

7.12.3. The risk of contamination of a stream and a well has been raised as a concern. The Ecological Impact Assessment submitted with the application states that the earthworks are minor and excavated soil will be protected and stockpiled in designated areas away from any watercourse. The Flood Risk Assessment submitted with the application states that the subsoils (GSI figure 2.7) consist of limestone gravels, esker sands and gravels and cut over raised peat; overlying limestone with groundwater of moderate vulnerability (water table depth greater than 10m). During the operational phase, cleaning of the panels will take place once or twice a year. No chemicals will be used during the cleaning process as it is based on de-ionised/purified water. A cleaning roller is used to remove dust/contaminants from the surface of the panels with the use of special microfibre cloth. As the overall flow rate is low per square metre, it is not expected that any runoff will reach the underlying groundwater body and instead will be absorbed by the overlaying grass vegetation or lost through the evapotranspiration process.

In my opinion the proposed development is not a threat to any stream or well and such concern should not be a reason to refuse or modify the proposed development.

7.12.4. The issue of community compensation was raised by a third party. The applicant response is that there is a significant development contribution which will be used towards public infrastructure and facilities which will benefit the wider area. As regards a specific Community Benefit Scheme, this will not be provided as part of the planning permission but will be implemented subject to the Renewable Energy Support Scheme, which will provide an enabling framework for community participation in renewable energy projects. Once this fund is created it will be decided by the local community how it is implemented.

A development Contribution is applicable per the Westmeath Co Co Development Contribution Scheme 2013-2020 (F - 'Wind Turbines and other renewable energy installations generating more than 0.5 MW' the amount of the contribution being €1,000 per 0.1MW), and a suitable condition should be attached. No other contribution is applicable.

7.12.5. External lighting and use of CCTV cameras have been raised as concerns. The proposed substation, which is before the Board under a separate application (306393) proposes external lighting. External lighting of the solar farm is not proposed. CCTV security cameras are proposed. They will be installed on 4m high poles at appropriate intervals, indicated in the Planning & Environmental Report to be 100m intervals around the site perimeter, and directed solely into the solar farm. These will enable remote surveillance, and will include both analogue and thermal (infra red) cameras, to allow for night time operation without the use of lighting. It is stated that the locations will be subject to the agreement of the planning authority prior to construction. The Board will note that the planning authority's decision included a condition regarding agreeing details of the proposed CCTV security cameras and a similar condition is considered appropriate if the Board is minded to grant permission.

8.0 Recommendation

8.1.1. In light of the foregoing assessment I recommend that planning permission should be granted in accordance with the following conditions and for the reasons and considerations set out below.

9.0 Reasons and Considerations

Having regard to:

(a) the nature, scale and extent of the proposed development,

(b) the national targets for a renewable energy contribution of 40% to gross electricity consumption by 2020,

(c) national and local policy support for developing renewable energy, in particular the:

Government's Strategy for Renewable Energy, 2012-2020,

National Planning Framework, 2018,

Delivering a Sustainable Energy Future for Ireland - the Energy Policy Framework, 2007-2020,

Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure 2012,

Regional Planning Guidelines for the Midland Region, 2010 – 2022

Policies P-EN1 and P-EN5 of the Westmeath County Development Plan, 2014-2020,

(d) the location of the proposed development on moderate grade agriculture land in fields surrounded by hedgerows which assist it's visual absorption and where the Landscape Character designation as set out in the Development Plan requires no particular landscape protection,

(e) the distance to dwellings or other sensitive receptors from the proposed development,

(g) the submissions on file

(h) the documentation submitted with the application, including the Appropriate Assessment Screening Statement and the Planning and Environmental Report,

I consider that the proposed development, would

(a) not have an unacceptable impact on the character of the landscape or on the cultural or archaeological heritage,

(b) not seriously injure the visual and residential amenities of the area,

(c) be acceptable in terms of public health, traffic safety and convenience,

(d) not have an unacceptable impact on ecology,

(e) make a positive contribution to Ireland's requirements for renewable energy, and

(f) be in accordance with:-

(i) Government's Strategy for Renewable Energy, 2012-2020,

(ii) the National Planning Framework, 2018, and

(iii) the Westmeath County Development Plan, 2014-2020.

The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

10.0 **Conditions**

1.	The development shall be carried out and completed in accordance with the plans and particulars including the mitigation measures specified in the Planning & Environmental Report, lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require points of detail to be agreed with the planning authority, these matters shall be the subject of written agreement and shall be implemented in accordance with the agreed particulars. In default of agreement, the matter(s) in dispute shall be referred to An Bord Pleanála for determination. **Reason:** In the interest of clarity.
2.	The period during which the development hereby permitted may be carried out shall be 10 years from the date of this Order. **Reason**: Having regard to the nature of the proposed development, the Board considered it reasonable and appropriate to specify a period of the permission in excess of five years.
3.	a) This permission shall apply for a period of thirty years from the date of commissioning of the associated substation. All structures shall then be removed unless, prior to the end of the period, planning permission shall have been granted for their retention for a further period. (b) The site shall be reinstated on removal of the solar farm structures and ancillary structures. Details relating to the removal and reinstatement shall be submitted to and agreed in writing with the planning authority at least one month before the date of expiry of this permission. **Reason**: In the interests of orderly development and having regard to the fact that the structures are inherently temporary in nature.

4.	All of the environmental, construction and ecological mitigation measures set out in the Ecological Impact Assessment and the Planning and Environmental Report, and other particulars submitted with the application shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this order. **Reason**: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

5.	a) Prior to commencement the developer shall submit to the Planning Authority for written agreement fully annotated construction design drawings showing:
	• In accordance with TII Publication: Geometric Design of Junctions (DN-GEO-03060):
	  • L5008 / R446 junction layout with sightlines of 2.4m x 160m;
	  • New site access junction layouts on the L5008 and L5009 with sightlines of 2.4m x 120m;
	  • New site access junction layouts on the L1007 with sightlines of 2.4m x 120m;
	• Proposed passing bay to be provided on the L5008 in accordance with preliminary design drawing 2017 C264_1/6V1.1 submitted for planning. The design to be in accordance with the TII Publication: Guidance on Minor Improvements on National roads (DN-GEO-03030).
	b) Sightlines of 2.4m x 160m shall be achieved and maintained at all times from the proposed existing access point on the R446;
	c) Sightlines of 2.4m x 120m shall be achieved and maintained at the existing the L5008 / L1007 junction.
	d) Prior to commencement the developer to submit to the planning authority for written approval a road condition survey (which shall include FWD tests) of the roads along all the local road network (L-5008 and L-1007) over

	which construction traffic will travel, as shown in Figure 2.2 – Construction Traffic Route of the RFI Traffic Response submitted for planning. This road condition survey shall be carried out by a qualified engineer both pre and post construction of the Solar PV Energy Development at the developer's expense. The pre-construction road condition survey shall include a schedule of required works to enable the Designated Construction Traffic Routes to cater for construction-related traffic. The extent and scope of the survey and the schedule of works required shall be based on the survey results and shall be agreed with the PA prior to commencement of development. The post construction road condition survey to be completed within three months of satisfactory completion of the development. e) If any construction damage arises to the public roads during construction, this shall be immediately rectified to the satisfaction of the Planning Authority. f) Prior to the commencement of development, the developer shall lodge with the Planning Authority, a cash deposit / bond of insurance company, or other security to secure the satisfactory reinstatement of public roads subjected to construction traffic, coupled with an agreement empowering the Planning Authority to apply such security or part thereof commensurate with the cost of satisfactory completion of the reinstatement. The form and amount of the security, which will not exceed €200,000, shall be agreed between the Planning Authority and the developer, or in default of agreement, shall be determined by An Bord Pleanála. g) The developer to apply to WCC for a road opening licence for all road openings including road openings required for cabling along the R446, L-1007 and L-5008. h) A road sweeper shall be maintained on site at all time and used to ensure that all access roads to the facility are kept clean for the duration of the construction work. i) The developer shall carry out a Stage 3 Road Safety Audit post construction on the completed junctions and access points on all public roads in accordance with the provisions of TII document 'GE-STY-01024

	Road Safety Audit'. The recommendations of the Stage 3 Road Safety Audit shall be implemented within a timeframe to be agreed with the Planning Authority. **Reason:** In the interests of traffic safety,
6.	a) Prior to commencement the applicant shall submit to the Planning Authority for written agreement, details of the cable route from the junction of the R446 and the L5008 to the site. b) Prior to commencement the developer shall submit a written guarantee that Westmeath Co Co will not be liable for cost associated with the future relocation of the HV cable or loss of earning during the relocation of cable in the event of realignment or repair of the road. c) Cables within the site shall be located underground. **Reason:** In the interests of orderly development.
7.	The surface water system shall be designed to mimic existing green field runoff from the proposed site during a hundred year rainfall event and a restricted discharge rate of no greater than 5l/s/ha (min 5l/s). Existing land drainage shall not be impeded. All surface water from all hardstanding areas for vehicular refuelling, maintenance, waiting and parking shall be passed through adequately sized and located petrol / oil bypass interceptors before any discharge to waters. Prior to commencement the developer shall submit to the Planning Authority for written agreement full details of the petrol / oil interceptors and hardstand area. All fuel, lubricants or other chemical storage tanks shall be adequately bunded to protect against spillage. Bunding shall be impermeable and capable of retaining a volume equal to 1.5 times the capacity of the largest tank. The developer shall take precautions to ensure that oils and fuels used in the operations are stored in a secure place. All waste oil shall be removed from the site and disposed of in accordance with

	the Waste Management Act 1996-2003 and to the satisfaction of the Planning Authority. Where the development land is higher than the public road a linear drainage channel or gully shall be placed at the entrance to the development, connected back to an additional dedicated soakaway. **Reason:** In the interests of public health and orderly development,
8.	All road surfaces, culverts, watercourses, verges and public lands shall be protected during construction and, in the case of any damage occurring, shall be reinstated to the satisfaction of the planning authority. Prior to commencement of development, a road condition survey shall be taken to provide a basis for reinstatement works. Details in this regard shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. **Reason**: In order to ensure a satisfactory standard of development.
9.	Prior to commencement of development the location of the CCTVS will be submitted and agreed by the Planning Authority. The CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining properties or public roads. **Reason:** In the interests of the amenities of the area.
10	In the event that the proposed mitigation measures do not negate glint and glare along the M6, the developer shall be responsible for any mitigation costs or for the removal of elements of the solar farm as required to ensure that no glint or glare impact the M6 motorway. **Reason:** In the interests of traffic safety.

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) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess and monitor all preparatory works and all site development works. b) investigate areas of archaeological potential by means of geophysical survey and, depending on the findings, carry out test excavations if deemed necessary following consultation with the National Monuments Services Section of the Department of Culture, Heritage and the Gaeltacht. c) notify the planning authority in writing at least four weeks prior to the commencement of any site operation relating to the proposed development, and d) submit a report to the planning authority, containing the results of the archaeological investigations and assessment. 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	Prior to commencement the developer shall submit a biodiversity management plan for the site prepared by a qualified ecologist taking account of the document 'BRE National Solar Centre Biodiversity Guidance for Solar Developments', published by bre.co.uk, and addressing all relevant issues, including: The species to be used in hedgerow reinforcement and new hedgerow planting. Details of hedgerow management.

	Details of the management of the land beneath and between the solar panels. Details of the management of the land around the field edges. **Reason:** In order to safeguard the ecology of the area.
13	Use of pesticide & weedkiller use shall be minimised and only used subject to the written agreement of the planning authority. No fertiliser may be used within the site. **Reason:** To ensure that there is no leaching of harmful chemicals into local surface or groundwater receptors'
14	All landscaping shall be planted to the written satisfaction of the planning authority prior to commissioning of the development. Any trees or hedgerow that are removed, die or become seriously damaged or diseased during the operative period of the solar farm as set out by this permission, shall be replaced within the next planting season by trees or hedging of similar size and species, unless otherwise agreed in writing with the planning authority. **Reason**: In the interests of biodiversity, the visual amenities of the area, and the residential amenities of property in the vicinity.
15	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: a) location of the site and materials compound(s) including area(s) identified for the storage of construction refuse b) location of areas for construction site offices and staff facilities c) details of site security fencing and hoardings

	d) details of on-site car parking facilities for site workers during the course of construction e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site, f) measures to obviate queuing of construction traffic on the adjoining road network, g) measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network, h) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels, i) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater, j) off-site disposal of construction / demolition waste and details of how it is proposed to manage excavated soil k) details of on-site re-fuelling arrangements, including use of drip trays, l) details of how it is proposed to manage excavated soil, m) means to ensure that surface water run-off is controlled such that no deleterious levels of silt or other pollutants enter local surface water drains or watercourses. A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be kept for inspection by the planning authority. **Reason**: In the interest of environmental protection, amenities, public health and safety.
16	The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning

	and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. The application of any indexation required by this condition 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. **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.

Planning Inspector

15th July 2020

Appendices

1 Photographs

2 Westmeath County Development Plan 2014-2020, extracts

3 Westmeath Development Contribution Scheme, extracts

4 National Planning Framework (NPF), Government of Ireland, 2018, extracts

5 Regional Planning Guidelines for the Midland Region, 2010 - 2022, extracts

6 Site Synopsis Milltownpass Bog NHA, Site Code 002323