

# MAGHERALIN SOLAR FARM

## EIA Screening Report

NI 2702  
V02  
November 2023

## REPORT

### Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
V01	For Internal Review	PMK	SF	PMK	29.10.23
V02	For Issue	PMK	SF	PMK	01.11.23

### Approval for issue

Paul McKernan



1 November 2023

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# 1 INTRODUCTION

This Environmental Impact Assessment (EIA) Screening Report is submitted for consideration to Armagh City, Banbridge & Craigavon Borough Council (the Council) on behalf of RES Ltd (the Applicant). The Screening Report is submitted as part of a planning application pack which seeks permission for the:

*“Installation and operation of a 29.9MW solar farm including photovoltaic panels, mounting frames, transformer / inverter units, and on-site substation with associated ancillary development including security fencing, pole mounted CCTV, associated landscaping, internal access tracks, new site access, internal cabling and associated site works.” (The Proposed Development)*

The landholding upon which the development is proposed measures c. 64.43 hectares / 159.23 acres.

For ease of reference and to facilitate review, the site is referred to within this Report as being made up of four land-parcels which are located south of Magheralin and southeast of Dollingstown. From north to south lands comprise:

- Parcel 1 – Lands accessing onto Springhill Road, immediately northwest of No.22 Springhill Road, Lurgan and immediately to the rear and northeast of 66, 68 and 70-90 Inn Road, Dollingstown (c. 9.3 ha);
- Parcel 2 – Lands c.300m southeast of 15 Springhill Road, Lurgan, c.240m northwest of 117 New Forge Road, Magheralin, Lurgan, and c.400m east of 64 Dromore Road, Lurgan (c.33.3ha);
- Parcel 3 – Lands c 80m northeast of 102 Dromore Road, Waringstown, and immediately adjacent to and west of 108 Dromore Road (c.9.4ha); and
- Parcel 4 – Lands c.660m southeast of 105 Dromore Road, Donaghcloney and extending south/southeast to c.80m north/northeast of 67 Drumlin Road, Craigavon and c.70m to the rear and southwest of 119 Dromore Road, Donaghcloney. (c. 11.5 ha).

Parcels 2 and 3 will be connected via underground cables which will pass through agricultural fields utilising existing agricultural lanes where available. The northernmost land-parcel (Parcel 1) will be connected via an interconnection cable across Springhill Road and intervening agricultural lands and the second interconnection route proceeds northwards from the southern-most land parcel (Parcel 4) across Drumlin Road and through intervening agricultural lands. It is proposed to traverse the River Lagan via horizontal directional drill before crossing Dromore Road to the north, and entering Parcel 3 of the site. The purpose of the interconnecting cables is to transfer energy created from inverter stations to the on-site substation which is located in the centre of the site (Parcel 3). The interconnection cable areas comprise 0.93ha.

Please refer to Figure 1 below.



**Figure 1: The Application Site (Source: Google Earth)**

## EIA SCREENING REPORT

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The Applicant is aware that the development falls within the terms of Schedule 2 of The Planning (Environmental Impact Assessment) Regulations (NI) 2017 (hereafter described as 'the EIA Regulations') and that the Council as the planning authority is required to undertake EIA screening to determine whether this is considered 'EIA development'.

The EIA regulations require that, where the planning authority must make a screening determination, it shall consider —

- Any information provided by the Applicant;
- Where relevant, the results of other environmental assessments carried out pursuant to Union legislation other than legislation implementing the requirements of the Directive; and
- Such of the selection criteria as are relevant to the proposed development.

This EIA Screening Report endeavours to assist the Council in making the determination. It is supported by the plans and environmental reports provided in the planning application pack – drawing from these where appropriate - and also containing other information required for the purposes of the EIA determination, namely:

- A description of the proposed development and the location of the development;
- A description of the aspects of the environment that could potentially be significantly affected by the development; and
- A description of the likely significant effects of the development.

This statement, prepared by RPS on behalf of the applicant, reviews the Proposed Development against the requirements of the EIA Regulations, with particular regard to its nature, size and location, and considers also screening decisions taken in respect of similar proposals within Northern Ireland and the UK.

## 2 SITE LOCATION AND PROJECT DESCRIPTION

### 2.1 Site Location

As stated in Section 1 of this Screening Report, the site measures c.64.4ha in area and is made up of four main parcels comprising several agricultural fields which will be connected by proposed underground cabling.

The lands are all located outside any limit of development, defined as Greenbelt within the Craigavon Area Plan 2010, although at their northernmost extents (Parcel 1) sits immediately adjacent and southeast of the development limits of Dollingstown. Surrounding land-uses include residential, industrial, agricultural and recreational. Notable development in the area includes:

- Huhtamaki Fibre Packaging Plant – c. 80m northwest of Parcel 1;
- Dollingstown FC Facilities – immediately adjacent to the boundary of and southwest of Parcel 2; and
- Polypipe – adjacent and southeast of the Dromore Road and c. 100m northwest of Parcel 4.

In addition there are a number of one-off residential properties, typically reflective of the settlement pattern throughout Northern Ireland, some of which have associated farm complexes and agricultural buildings. A linear development of one-off houses is situated near to and west of the Proposed Development along Inn Road which extends south from Dollingstown. These houses front Inn Road facing west and are separated and screened from the site by elongated rear gardens, intervening ancillary development including garages, and a mature band of vegetation.

Other commitments on the landscape include electricity infrastructure including roadside poles and pylons, which are visible along roadsides and as they traverse fields.

There is a strong transport network near the site and in the general locality. Three access points are included as part of the proposed development opening onto Springhill Road, Dromore Road and Drumlin Road all of which are situated adjacent to the site boundary. At its nearest, the M1 is less than 4.5km north of the site.

### 2.2 Project Description

The Proposed Development comprises the construction and operation of a solar farm with a proposed capacity of 29.9MW. Key project components are listed in the bullet points below and are described in greater detail within subsequent text:

- Photovoltaic (PV) Solar Panels erected on steel/aluminium frames set out in south facing arrays;
- 1 on Primary 33kV Sub-station typically measuring 10.34 x 5.7 m x 6.45m h and a solar control building 8.3m x 3.45 x 4m;
- 9 No. Inverter Substations typically comprises of inverter measuring 5 x 3 x 2.5m and a transformer typically measuring 4x 3 x 2.5m to be located across the site;
- Perimeter post and wire “deer-style” security fencing (2.4m high);
- A number of strategically located CCTV security cameras (3.5m high);
- New or upgraded access points onto Dromore Road (Centre), Drumlin Road (South), and Springhill Road (North);
- Associated internal service tracks;
- Internal and interconnecting underground cabling; and
- Temporary construction compounds.

The proposal will have an operational lifespan of 40 years after which it will be fully decommissioned. Proposed planting which would be established within the landscape at that time will be left untouched.

When operational the site will support a dual renewable/farming use and the overwhelming land area will remain agricultural. Sheep grazing will take place across the entire area and will not be impeded by the proposed infrastructure.

## 2.2.1 Solar Panels

Solar panels will be composed of bifacial photovoltaic cells, opaque in design to maximise the absorbency of the sun's rays and to minimise the potential for reflection or glare. The solar panels will be arranged in south facing arrays, fixed within the site. There are no moving parts and they do not move to follow the sun.

The proposed panels will measure typically 2.5m by 1.1 m. These will be mounted in frame tables at an inclination of min 10 to a max 40 degrees depending upon localised topography. Each frame table will be supported on steel/aluminium posts/frames that will be pushed or screwed into the ground to depths of up to 2.4m. The front bottom edge of the panels will be typically 0.7m above existing ground level and within a range of 500mm to 1.2m, again depending on local topography.

Panels can be arranged in either portrait or landscape orientation. Regardless of their arrangement overall panel heights from ground level will not exceed 3.5m. There is a minimum spacing of 2m between the arrays.

Example arrangements are illustrated in Plates 1 and 2 of this Report.



**Plate 1:** Typical Solar Panel Arrangement – Landscape Formation



**Plate 2:** Typical Solar Panel Arrangement – Portrait Formation

## 2.2.2 Mounting System

Each frame table will be supported on aluminium and steel posts/frames. Where posts are pushed into the ground this is via typical agricultural methods routinely used to erect fence posts on farms and in the rural area. Depending on ground conditions frames will be fixed to the ground by either:

- Option 1 - Single post ground fixture, which as suggested will be a single aluminium/steel frame driven into the ground;
- Option 2 - Table post ground fixtures - where frames will be fixed on a table-style frame driven into the ground;
- Option 3 - In cases where it is required to safeguard potential archaeological assets frames can be mounted using a shallow concrete 'shoe'.

Option 3 is typically employed where constraints are identified by archaeologists during the post planning monitoring of construction activities as part of an archaeological programme of works proposed which are typically required through applied planning conditions. This solution can also be applied where rock is encountered across the site which may prohibit the erection of the mounting system via options 1 and 2 above.

## 2.2.3 Connecting Cables

Connecting cables run along the back of each panel to the end of every row where they connect to the main cables which in turn connect to inverter stations and primary on-site substation located in land-parcel 3. Main cables will be undergrounded.

## 2.2.4 Interconnection

There are two interconnection routes the purpose of which is to transfer the energy created from the on-site inverter stations to the on-site substation which is proposed in the centre of the site – Parcel 3.



One interconnection route extends from the northernmost land-parcel (Parcel 1) across Springhill Road and intervening agricultural lands, then along internal tracks within the Proposed Development until it reaches the substation.

The second interconnection route proceeds northwards from the southern-most land parcel (Parcel 4) across Drumlin Road and through intervening agricultural lands. It is proposed to traverse the River Lagan via horizontal directional drill before crossing Dromore Road to the north, and entering Parcel 3 of the site.

### 2.2.5 Inverter Stations

Inverter Stations will be located throughout the development area. These are small cabin-like buildings constructed on a concrete base / plinth with footprint dimensions of 5 x 3m, rising to a height of 3m and a transformer typically 4m x 3 x 2.5m high.

Figure 11 included as part of the planning application pack demonstrates two options for placing inverter stations on the site. Option 1 is for the inverter and transformer to be placed in the open air. Option 2 is for the inverter and transformer to be housed within an inverter container unit. Either option involves placing the inverter stations atop a permeable stone surface which measures 12m x 6m.

These stations are connected to the panels by cabling (refer 2.2.3) which has been buried underground. The inverter stations convert the Direct Current electricity generated by the solar panels into Alternating Current (AC) electricity before being fed into the primary substation and then onward to the local electricity grid network.

Plate 3 below illustrates a typical inverter container unit.



**Plate 3:** Typical Inverter Container Unit

### 2.2.6 Primary Substation Building and Grid Connection Route

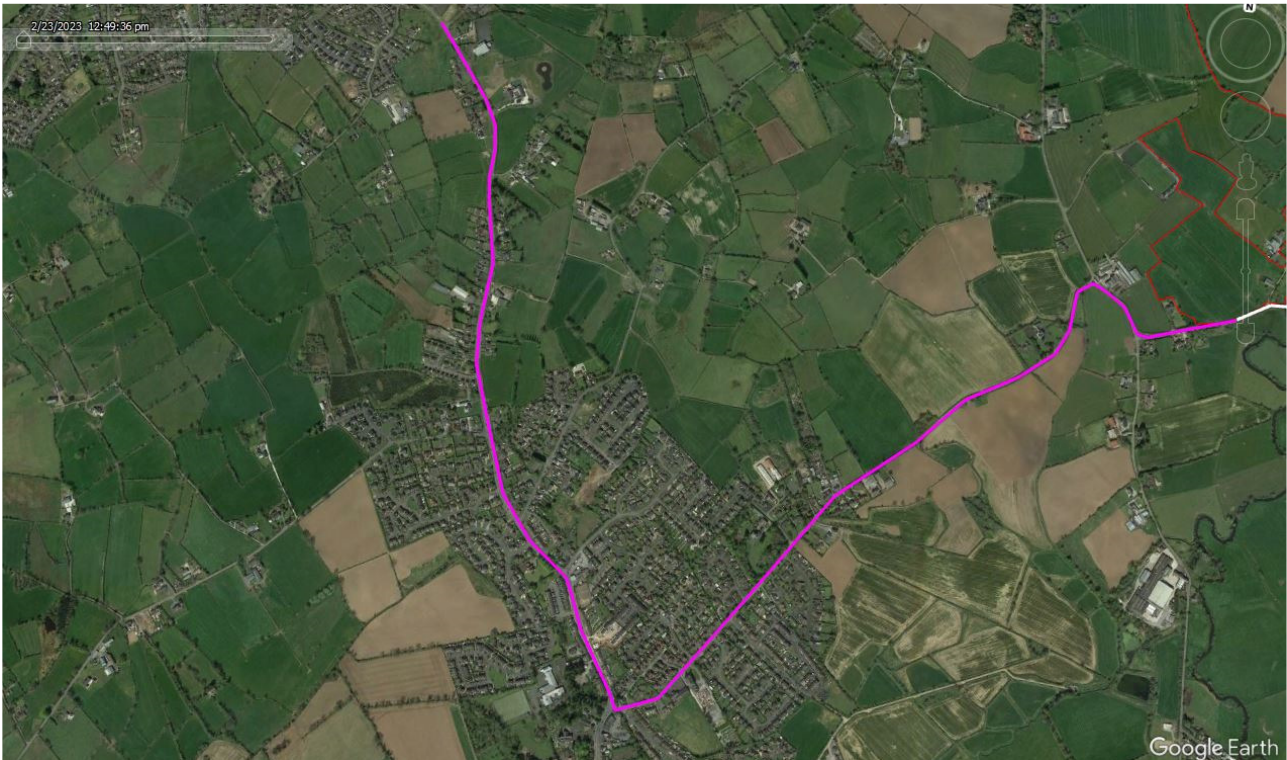
The substation and control building compound will accommodate all necessary equipment to enable the solar farm electrical system to be controlled, monitored, metered and connected to the network.

The control building will take the form of a multi-compartment prefabricated structure atop a concrete foundation. Equipment to be accommodated within the substation typically include metering equipment, switchgear, transformers, the central computer system and electrical control panels.

The substation building dimensions are 10.34 x 5.7m x 6.45m H. There is also a solar control building which will be 8.3m x 3.45m x 4m. It is located within a larger compound 34x 27m comprising a permeable hardstanding area.

The grid connection point for the proposed Magheralin solar farm is likely to be to 110kV/33kV Warringstown substation, which is located on the southern outskirts of Lurgan east of the A26 Banbridge Road – please refer to Figure 3 below. Connection will be by underground cable likely to be laid in the local road network or potentially including some third-party lands.

This connection does not form part of the planning application and will be delivered via a separate consenting process. If undertaken by a statutory undertaker, the connection would normally benefit from permitted development rights under the terms of Class C of Part 14 of the Schedule to the Planning (General Permitted Development) Order (NI) 2015.



**Figure 3:** Potential grid connection route (Source: Google Earth)

### 2.2.7 Waste Disposal

The proposal will not generate any waste. Toilet facilities on-site during construction will be self-contained to be appropriately disposed of off-site by qualified contractors. A toilet facility will be proposed within the substation compound, but again this will be self-contained and disposed of off-site by approved contractors.

### 2.2.8 Perimeter Fencing

For security purposes the area of development will be enclosed by 2.4m high post and wire fencing.

The materials used are chosen to be in keeping with the landscape. The fence will have mammal gates to allow continued unrestricted access for small mammals across the site.

An image of typical fencing proposed at the site is included below in Plate 4.



**Plate 4:** Typical Post and Wire Security Fencing

## 2.2.9 CCTV Cameras

For security purposes there will be CCTV cameras placed strategically throughout the development site. These will be pole mounted to heights of 3.5m, be directed along fence-lines and utilise infra-red technology.

Cameras are designed to not move either intentionally or unintentionally due to adverse weather conditions or animal activity.

Plate 5 below includes an indicative example of a typical form of CCTV cameras associated with proposals such as this.



**Plate 5:** Typical CCTV Camera

## 2.2.10 Site Access

Access to the site during both construction and operation will be via new road openings:

- Onto Springhill Road at the northern site extents (Parcel 1);
- Onto Dromore Road at the central site extents (Parcel 2 and 3); and
- Onto Drumlin Road at the southern site extents (Parcel 4).

## 2.2.11 Internal Service Tracks

The development will utilise existing agricultural lanes for servicing purposes in so far as is reasonably possible. Access will also be achievable during construction and operation via tractor or 4 x 4 vehicles around the periphery of existing fields where buffers to field boundaries are designed into development proposals. As such the extent of proposed new access tracks is minimised. Where new tracks are required these will be permeable and of stone construction.

## 2.2.12 Traffic Generation

There will be c.1250 deliveries to the site across the entirety of the c.40 week construction stage. Deliveries will be via standard HGV and there will be no oversized loads associated with the proposal.

Traffic generation at the site will peak at week 10 (stone delivery) and week 20 (PV panels) of the c.40 week programme (Construction peak and delivery peak) when there is anticipated to be c. 9 HGV deliveries per day to the site.

During operation traffic generation will be negligible at the site and limited to routine maintenance and cleaning – anticipated as no more than 1 visits per week by standard van or 4x4 vehicle.

## 2.2.13 Construction Period

The proposal will be constructed across a 40 week period (worst case) - not allowing for holiday periods.

Temporary storage compounds will facilitate the construction process. It is likely these will be located in 4 separate locations across the subject site, one to serve each of the land parcels described in Section 1 of this Screening Report. The locations of the proposed temporary compounds are illustrated in the Drawing Pack that forms part of the planning pack.

The compounds will be surrounded by a 3m high chain link fence to secure the contents and will enclose:

- a. A site office;
- b. Containers to facilitate storage of panels and tools;
- c. Areas of parking;
- d. Kitchen;
- e. Chemical toilets; and
- f. An area of storage for sand to facilitate cable laying.

As per Section 2.2.7 toilets will be self-contained. There will be no discharge to the ground or requirement for septic tank provision. Chemical toilets will be placed within a bunded area to protect against leakages. Toilets will be disposed of off-site, as required by appropriate contractors and to appropriate licenced facilities.

An onsite fuel storage container will be surrounded by a bund wall to protect against spillages and contamination. Ground level will be finished in a proposed 300mm Type 3 stone or equivalent. The compound area will measure approximately 50m x 60m maximum although those to serve land parcels 1 and 4 are likely to be much smaller. Upon completion of construction works compound areas will be reinstated and all hardcore will be removed off site and disposed of appropriately.

### 2.2.14 Operational Period

It is anticipated that the proposal will have an operating life of 40 years after which all panels and associated infrastructure will be removed and the site reinstated in accordance with a scheme to be agreed in writing with the Planning Authority at that time. This requirement is likely to be attached as a condition of compliance to any notice of planning consent.

### 2.2.15 Panel Cleaning/Maintenance

Professional contractors will undertake panel cleaning using de-ionised water. Cleaning will tend to take place during times of dry weather. As per the specified PV module manufacturer guidelines, no chemicals will be used in the cleaning of the modules ensuring there will be no contaminated run-off from panel washings on.

PV modules are classed as a 'Class 2' electrical component; this means that no touchable part of the panel is capable of causing electrocution, even in the event of internal short circuit.

### 2.2.16 Lighting

No permanent lighting is proposed. Manually operated lights may be attached to the substation and/or inverter cabinets in the event of an emergency maintenance visit being required in the hours of darkness.

### 2.2.17 Decommissioning & Reinstatement

At the end of the project's operational life the solar farm will be fully decommissioned.

The operational lifespan of the project is 40 years and over this time any landscaping associated with proposals will establish and grow to form mature hedgerows and shrubbery. All landscaping will be retained in situ.

All project elements will be removed from site and where possible will be recycled. Any waste generated during the decommissioning process will be removed and transported by a certified and licensed contractor. The site will be restored leaving no permanent visible surface trace, other than tracks. The solar panels will be removed from the site in the same way they were transported to the site originally. The cables interconnecting the panels to the electricity grid system will be de-energised and removed from the site.

A decommissioning programme will be agreed with the relevant authorities prior to commencement of the required works. An alternative option at the end of the solar farm operational life cycle may be the refurbishment or replacement of components. This action would be dependent upon many factors all of which would combine to inform viability at such future date.

Any such proposal would require a new development consent application.

## 2.3 Design Principles

A series of design principles have informed the evolution of the project layout including:

- Undertaking development proposals cognisant of onsite physical constraints to ensure features including landscaping is retained in-situ;
- Working with the existing site topography to avoid cut and fill or regarding of land;
- Where environmental constraints are identified, retaining these in-situ;
- Integration of a comprehensive package of landscape and ecological enhancement measures as an integral project component.

Where there is potential for minor deviations in respect of project components, for example heights of panels off the ground, in all instances the maximum/most onerous design parameter has been applied to ensure a robust "worst case scenario" assessment.

### 3 THE EIA REGULATIONS

The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017 (EIA Regulations) set out thresholds for Schedule 1 developments for which Environmental Impact Assessment is mandatory and Schedule 2 development for which an EIA may be required. The proposed development does not fall within any of the developments listed in Schedule 1, but falls within Section 3(a) of Schedule 2, i.e.:

3. Energy Industry	Applicable thresholds & criteria
a) <i>Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1)</i>	<i>The area of the development exceeds 0.5 hectare</i>

Schedule 2 development proposals require an Environmental Impact Assessment (EIA) if they are considered likely to have significant effects on the environment, by virtue of such factors such as nature, size or location. It is therefore appropriate to submit this request for a Screening Opinion to Armagh City, Banbridge and Craigavon Borough Council, as the relevant Local Planning Authority, to determine whether it considers that this proposal would have significant environmental effects, constituting 'EIA Development'.

Schedule 3 of the EIA Regulations provides selection criteria for screening Schedule 2 developments, namely: the characteristics of the development; the environmental sensitivity of the location; and the characteristics of the potential impacts (e.g. its magnitude and duration).

#### 1. Characteristics of development

The characteristics of development shall be considered having regard, in particular, to:

- (a) the size and design of the whole development;
- (b) the cumulation with other existing development and/or approved development;
- (c) the use of natural resources, in particular land, soil, water and biodiversity;
- (d) the production of waste;
- (e) pollution and nuisances;
- (f) the risk of major accidents and/or disasters which are relevant to the development concerned, including those caused by climate change, in accordance with scientific knowledge;
- (g) the risks to human health (for example due to water contamination or air pollution).

#### 2. Location of development

The environmental sensitivity of geographical areas likely to be affected by development shall be considered, with particular regard to:

- (a) the existing and approved land use;
- (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;
- (c) the absorption capacity of the natural environment, paying particular attention to the following areas—
  - (i) wetlands, riparian areas, river mouths;
  - (ii) coastal zones and the marine environment;
  - (iii) mountain and forest areas;
  - (iv) nature reserves and parks;
  - (v) areas classified or protected under national legislation and areas designated pursuant to Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora and Council Directive 2009/147/EC on the conservation of wild birds;
  - (vi) areas in which there has already been a failure to meet the environmental quality standards laid down in Union legislation and relevant to the development, or in which it is considered that there is such a failure;
  - (vii) densely populated areas;
  - (viii) landscapes and sites of historical, cultural or archaeological significance.

#### 3. Characteristics of the potential impact

The likely significant effects of development on the environment shall be considered in relation to criteria set out under paragraphs 1 and 2 of this Schedule, with regard to the impact of the development on the factors specified in regulation 5(2), taking into account:

- (a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);
- (b) the nature of the impact;
- (c) the transboundary nature of the impact
- (d) the intensity and complexity of the impact;
- (e) the probability of the impact;
- (f) the expected onset, duration, frequency and reversibility of the impact;
- (g) the cumulation of the impact with the impact of other existing and/or approved development;
- (h) the possibility of effectively reducing the impact.

This EIA Screening Report draws on assessments of potential significant effects of the Proposed Development. In the context of the Schedule 3 requirements set out above, this Screening considers the Proposed Development alongside other existing and/or approved developments that could give rise to cumulative impacts.

While solar PV farms are now a relatively well-established technology in Northern Ireland, guidance on the application of EIA regulations to this type of development has not as yet caught up. A number of authorities in GB have released planning guidance documentation on the processing of such planning applications. These include South Somerset District Council<sup>1</sup> who produced a Development Management Guidance Note (DMGN) and BRE/Cornwall County Council<sup>2</sup> providing guidance for both developers proposing a PV installation, and Local Authority Planning staff determining such applications. As in Northern Ireland, any proposal must be assessed against the selection criteria in Schedule 3 of the EIA Regulations to enable a screening opinion. On that basis the guidance confirms that EIA is likely to be needed for Schedule 2 developments if the solar PV development is in a particularly environmentally sensitive or vulnerable location. Specifically, it will be necessary to judge whether the likely effects on the environment of that development will be significant relative to local ecology; visual impact; and landscape character, along with any possible cumulative effects with existing or planned development.

The DMGN advises on the nature of assessments likely to be required and identifies the key considerations to be:

- Location;
- Assessment of agricultural land;
- Landscape/Visual Impact Assessment (to include PV glint and glare);
- Assessment of Cumulative Impact;
- Ecology survey and assessment;
- Transport Assessment;
- Flood Risk Assessment; and
- Archaeological interest or other features of cultural heritage

The DMGN states that the extent of survey and assessment material should reflect the extent and sensitivity of the receiver site.

The Department of Communities & Local Government<sup>3</sup> guidance on renewable energy recognises that the deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in very undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. The guidance highlights particular factors a local planning authority will need to consider including:

- Encouraging the effective use of previously developed land, and if a proposal does involve greenfield land, that it allows for continued agricultural use and/or encourages biodiversity improvements around arrays;
- That solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;
- The effect on landscape of glint and glare and on neighbouring uses and aircraft safety;
- The need for, and impact of, security measures such as lights and fencing;

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<sup>1</sup> South Somerset DC: Development Management Guidance Note Revision A

<sup>2</sup> BRE/Cornwall County Council: Planning Guidance for Development of Large Scale Ground Mounted Solar PV Systems

<sup>3</sup> DCLG: Planning Practice Guidance for Renewable and Low Carbon Energy. July 2013

- Great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;
- The potential to mitigate landscape and visual impacts through, for example, screening with native hedges; and
- The energy generating potential, which can vary for a number of reasons including, latitude and aspect.

DCLG advise that the approach to assessing cumulative landscape and visual impact of large-scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.

Planning authorities have previously carried out EIA screening exercises in respect of numerous solar PV farms in Northern Ireland. Within County Antrim applications for large scale solar farms have been approved at a number of locations including at Crumlin, Aldergrove, Rasharkin, Steeple Road Antrim, Bushtown Road Coleraine, Tullaghans Road Dunloy, Letterloan Road Coleraine, and Ballyrashane Road Coleraine many of which RPS were involved in. Consistently planning authorities have concluded that such proposals do not constitute EIA development and that, for planning and EIA purposes, the likely environmental effects are:

- Landscape and Visual;
- Noise, dust & vibration, amenity;
- Traffic;
- Natural Heritage/Flora & fauna generally;
- Archaeology & cultural interests;
- Consideration of Flood Risk; and
- Glint & glare.

Those EIA determinations in respect of proposals at Crumlin and Aldergrove concluded that the proposed developments do not constitute EIA development even in a context where the proposals fell within archaeologically sensitive areas, are hydrologically linked to Lough Neagh SPA and, in one case is within 400m of the runway at Belfast International Airport. It was concluded that the individual assessments of the potential impacts outlined above provided sufficient information to allow a full and proper assessment of the environmental effects.

This approach is in line with RPS' experience of local authorities' interpretation of the EIA regulations elsewhere in the UK.



## 4 SCREENING INFORMATION

### 4.1 Characteristics of the Development

#### 4.1.1 Size and Design of the Project

A detailed project description is set out in Section **Error! Reference source not found.** of this Report, confirming the project size and applied design principles.

#### 4.1.2 Cumulative Impact with Other Existing or Approved Developments

A review of existing development around the site together with planning history in respect of developments approved and currently under consideration was undertaken to assess the potential cumulation of the impact with the impact of other existing and/or approved development. The planning history search was undertaken using the Planning Portal <https://planningregister.planningsystemni.gov.uk/simple-search> and evidenced in the planning applications and decisions listed in Table 1 below.

**Table 1: Planning History**

Reference number	Site address	Proposed development	Decision
LA08/2023/2566/F	116 Swellendam House New Forge Road, Craigavon, BT66 7HW	Retention of extension of domestic curtilage, with retention of private use stable block and sand school, floodlighting and hardstanding area for domestic use, with associated site works	Granted 2023
LA08/2022/1248/O	Lands between 124 and 128 New Forge Road Magheralin BT67 0QW	Proposed site for a dwelling and associated site works.	Granted 2023
LA08/2023/1990/F	Lands approx 80m south-west of No.39 Inn Road, Dollingstown	Erection of 8no. dwellings and associated works	Granted 2023
LA08/2021/0312/F	Dollingstown Football Club Planters Park Dromore Road	Waringstown BT66 7QX. Erection of club house building and replacement changing rooms	Granted 2021
LA08/2020/1337/O	110m South of No. 47 Springhill Road Magheralin Craigavon	Proposed site for dwelling and garage on a farm	Granted 2021.
LA08/2020/0564/F	60m North of 108 Milltown Road Donacloney BT66 7NF	Proposed erection of dwelling and garage (change of house type)	Granted 2020

Reference number	Site address	Proposed development	Decision
LA08/2019/1326/RM	Lands 150m south east of No. 98 Dromore Road Waringstown BT66 7QX	Proposed new dwelling and garage (amended plans)	Granted 2020
LA08/2019/1357/F	Lands between 117 Milltown Road and 105 Dromore Road	Site for infill dwelling. (Amended plans)	Granted 2020.
LA08/2019/1326/RM	Lands 150m south east of No. 98 Dromore Road Waringstown BT66 7QX	Proposed new dwelling and garage (amended plans)	Granted 2020
LA08/2018/0116/F	78 Inn Road Dollingstown BT66 7JW	Proposed ground floor sunroom and first floor extension to dwelling	Granted 2019.
LA08/2018/0457/F	80m SW of 17A Acres Road Magheralin	Proposed new farm dwelling with detached double garage	Granted 2018
LA08/2018/0335/F	Adjacent and north of 34 Springhill Road Magheralin BT66 7JL	Proposed erection of dwelling & garage (change of house type, ref:N/2014/0553/RM)	Granted 2018.
LA08/2015/0751/RM	Adjacent to and South East of 70 Springhill Road Maralin	Proposed new dwelling and detached garage	Granted 2015

The listed planning history is dominated by one-off housing which is viewed as standard for an area of this type.

The potential for cumulative impacts between the Proposed Development and other developments is possible mainly due to:

1. Impacts during construction in the event that the construction timelines overlap for the proposed development and one or more of the developments listed in Table 1, mainly in terms of traffic and transport or noise effects; and
2. Cumulative landscape and visual impacts on receptors of acknowledged importance.

It is proposed that due to the nature of the developments listed – mainly one-off housing – there is little to no potential for significant cumulative effects as a result of overlapping construction timelines with the Proposed Development.

The presence of an operational solar farm to the south of Donaghcloney (Planning Ref: LA08/2015/0381/F) is acknowledged. The significant separation distance to the site of the Proposed Development together with intervening landscape features mean there is no potential for cumulative landscape or visual impacts. This other development is operational and there is no potential for cumulative impacts during construction.

Accordingly no further assessment of potential cumulative impacts is provided within this Screening Report.

### 4.1.3 Use of Natural Resources

It is proposed to place a renewable energy facility on a portion of existing agricultural land. The only water requirements will be facilitated by rainwater harvesting into bottles at the substation compound. It does not utilise fuel to operate. The facility harvests sunlight to create energy which is clean and renewable.

As per the project description set out in Section 2 of this Report, the design of the facility includes ingrained design principles including the retention of vegetation across the site, integration of separation distances to field boundaries (5m) and includes significant separation distances between panel arrays (at least 2m and often significantly more) meaning the overwhelming majority of the site will remain undisturbed. Furthermore, the Proposed Development includes embedded proposals for additional hedgerow planting as well as mitigation planting – comprising hedgerows and trees - that will enhance biodiversity and increase tree coverage in the locality.

The result of this approach is a dual use on site of renewable clean, green energy creation and retained agricultural use through sheep grazing during the entire operational period.

No further consideration in respect of use of natural resources is included within this Screening Report.

### 4.1.4 Production of Waste

As per Section 2.2.7, there will be no waste generated by the operation of the Proposed Development. Toilets are self-contained.

Construction processes will require minor excavation works to facilitate cable laying and foundation preparation for the inverter stations, cctv and substation. Excavated materials generated during cable trenching will be temporarily stored in accordance with best environmental practices and all trenches will be backfilled as work progresses across the site.

Excavated materials to facilitate foundations for inverter stations and substation buildings will be insignificant and will be reused across the site. In the unlikely event this cannot be facilitated, residual materials will be transported off-site to be disposed of by suitably accredited waste contractors.

Project components such as solar panels will be manufactured elsewhere and transported to site for installation only, meaning there is no waste generated.

At the end of its lifecycle all project components will be decommissioned in accordance with binding regulations at that time and recycled where possible.

It is considered that waste generated during construction of the Proposed Development is unlikely to result in any significant effects.

No further consideration of potential waste impact is provided within this Screening Report.

### 4.1.5 Pollution and Nuisances

There are no negative air quality impacts associated with the proposal other than those associated with vehicle movements during construction. These will not be significant or lead to any damaging air quality effects within the area. The project has the capacity to create enough clean renewable electricity to power 13,600 homes, contributing to Net Zero targets and leading to an annual carbon abatement of c18,000 tonnes .

Solar farms are largely noise neutral developments. During operation there are no moving parts associated with the facility, whilst maintenance traffic is occasional. There is potential for noise emissions from inverter units during peak hours of sunshine however experience advises that these will be localised and not significant.

Panels utilised on site will be manufactured by a registered supplier and in accordance with applicable EU Directives regarding the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment meaning any potential risk of contamination from broken panels is negated.

Sections 4.3.5 and 4.3.7 of this Report considers further, potential Noise and Traffic Impacts respectively.

No further consideration of Air Quality is provided within this Screening Report.

### 4.1.6 Accident Risk

Given the nature and location of the Proposed Development, it is considered that the risk of major accidents and/or disasters primarily relates to flooding events or traffic accidents during construction.

#### **Flooding**

Proposals have evolved to consider the baseline environment at the site including those flood risk considerations and to mitigate through avoidance is so far as is reasonably possible. Additionally it is worth noting that during operation the site will be unmanned, other than for occasional maintenance.

Please refer to Section 4.2.4 below which considers potential flood risks.

#### **Traffic Accidents**

The amount of traffic movements across the 40 week construction period are relatively low. Proposed access points and associated sight lines are designed cognisant of highways standards and to take account of traffic projections as well as the speed of traffic of the priority roads. Accesses will be put in place prior to construction commencing on site helping to ensure safe access and egress at the site. During operation traffic movements at the site are limited to occasional maintenance visits.

It is anticipated that any consent for the proposal will include a planning condition requiring the submission of a Construction Traffic Management Plan (CTMP) in advance of construction commencing at the site. This is a standard approach that has been taken by planning authorities throughout Northern Ireland and elsewhere and will include mechanisms for managing and limiting the potential for traffic impacts on the network.

Potential for traffic impacts is considered further in Section 4.3.5 below.

It is not predicted that the proposal will result in any significant effects in relation to accident risk.

### 4.1.7 Human Health

The Proposed Development is benign in terms of risk to human health. Any potential human health risks are limited to those associated with traffic movements during construction or potential noise impact.

It is predicted that no significant effects will arise in respect of those traffic or noise considerations and in any event should any impacts exist, these are short term and temporary. Further consideration is provided in Section 4.3.7 (traffic) and Section 4.3.5 (noise).

### 4.1.8 Glint and Glare

As per Section 2.2.1, solar panels are composed of bifacial photovoltaic cells, opaque in design to maximise the absorbency of the sun's rays and to minimise the potential for reflection or glare.

Notwithstanding this, a Glint and Glare Assessment has been completed in support of the Proposed Development, which considers the impact of the proposal upon road safety, residential amenity and aviation activity associated with Tandragee Airstrip and Tarsan Lane Microlights Airfield.

Glint and Glare is considered in Section 4.3.6 below.

## 4.2 Location of the Development

The site location is confirmed in Section 2.1 of this Report.

The baseline environmental context of the site and surrounding area is set out below. The site's location is not considered to be one that is sensitive in environmental terms.

### 4.2.1 Ecological Context

The site of the Proposed Development is not located within the boundary of any statutory or non-statutory designated sites of international, national or local nature conservation importance. The site however is hydrologically linked to Belfast Lough SPA, Belfast Lough Open Water SPA and Belfast Lough Ramsar site, which are designated sites of international importance and Belfast Lough Area of Special Scientific Interest,

which is a designated site of national importance. These are substantial distances from the site (33km via a straight line or 45km along the route of the hydrological link).

Please refer to Section 4.3.1 below which considers potential ecological impacts.

### 4.2.2 Archaeological and Cultural Heritage Context

There are no recorded archaeological or cultural heritage sites overlapping the area of the Proposed Development. There are ten archaeological sites recorded on the Sites and Monuments Record (SMR) within the applied 1km study area, the nearest of which is a rath (DOW020:005), the scheduled area for which overlaps slightly with the solar farm site, although notably there is no development planned over or near to this overlap.

Please refer to Section 4.3.2 below which considers potential archaeological and cultural heritage impacts.

### 4.2.3 Landscape Character

In recognising the importance of sustaining regional identity, the Northern Ireland Environment Agency (NIEA), commissioned the Northern Ireland Regional Landscape Character Assessment (NIRLCA), which resulted in the identification of distinct regional character areas within Northern Ireland. The site is located across two RLCAs namely: RLCA 14 – Lough Neagh Basin and RLCA 22 – Down Drumlins and Holywood Hills.

The Northern Ireland Landscape Character Assessment 2000 (NILCA 2000) contains landscape briefs for each of the 130 landscape character areas in Northern Ireland surveyed in 1999. A review of the NILCA 2000 indicates that the Proposed Development is located within three Landscape Character Areas (LCA); Craigavon Plateau LCA (79), Donaghcloney Valley LCA (80) and Upper Ballinderry Plateau LCA (109).

The Proposed Development is not located within close proximity to any Areas of Outstanding Natural Beauty, and as such this designation is not carried forward for further assessment.

There are two Historic Parks and Gardens (HPG) located in close proximity to the Proposed Development site. The closest of these is Brownlow House, which is approximately 1.85km northwest of the Proposed Development site. Despite the Proposed Development being located in close proximity to this HPG, site survey and assessment has established that due to mature tree planting, intervening topographical changes and heavy built form lying between the HPG and the Proposed Development site, the HPG does not have any visual interaction with the Proposed Development and is therefore not predicted to experience any significant effects as a consequence of the Proposed Development. As such the HPG has not been carried forward for further assessment.

The second HPG is Waringstown House, which is approximately 2.5km southwest of the Proposed Development site. Site survey and assessment has established that due to mature tree planting, well vegetated boundaries and intervening topographical changes between the HPG and the Proposed Development, the site does not have any visibility of the Proposed Development and is therefore not predicted to experience any significant effects as a consequence of the Proposed Development. As such the HPG has not been carried forward for further assessment.

The Proposed Development is not located near any designated Ulster Way footpath or any identifiable or marked walking trail.

Please refer to Section 4.3.3 below which considers potential landscape and visual impacts.

### 4.2.4 Flood Risk and Drainage

The River Lagan flows adjacent to some areas of the site. Two smaller watercourses, the Springhill Stream Extension and the Ballymacmaine Stream, also flow through the area. A review of baseline information available on the DfI Flood Maps (NI) illustrates that parts of the present day floodplain associated with the Lagan overlap portions of the site. The Climate Change (2080) flood map indicates similar areas overlapped by flood plain. Small pockets of surface water flooding are located within the site, indicated mostly with minimal depths of less than 0.3m.

There is no risk from coastal flooding or risk of flooding from impounded water bodies.

Please refer to Section 4.3.4 below which considers potential flood risk impacts associated with the project.

## 4.3 Characteristics of Potential Impacts

### 4.3.1 Ecology and Ornithology

The Application is supported by an Ecological Impact Assessment (EclA) which is informed by consultation, a desk-study and an Extended Phase 1 Habitat Survey assessing the potential impacts associated with the Proposed Development. Appendix V and VI of the EclA comprise the findings of an Ecological Survey for Birds and a Shadow Habitats Regulations Assessment (sHRA) respectively. The sHRA examines whether the Proposed Development is likely to have a significant effect on any European site and to help inform the assessment of the Competent Authority in accordance with the requirements of The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), otherwise known as the “Habitats Regulations”. The EclA was further informed by an Ecological Survey for Badger which has been submitted as a confidential appendix to the EclA.

The assessment of impacts upon identified designations, habitats and species confirms that:

- Designated Sites – As per Section 4.2.1 there is a hydrological link to the designations present at Belfast Lough. The significant distance (45km hydrological path) coupled with the design characteristics of applied buffers to the Lagan, and the fact there is no discharge from the development to any watercourse, means there will be no significant effect on any designated sites;
- Habitats – The design approach to work within existing field boundaries retaining hedgerows and vegetation, the application of a 5m buffer between hedgerows and proposed infrastructure, and the applied 10m separation distance to the River Lagan means there is no significant effects on priority habitats. Construction will occur on grassland habitat which are widespread within Northern Ireland and of ecological value at a site level only. This will have no significant effect. Landscaping proposals which are an inherent part of the project will enhance ecological activity in the surrounding area;
- Bats – That the design of the project has evolved to work within existing field boundaries thus avoiding direct habitat loss with the exception of hedge removal and trimming for sight-lines at access points. All trees categorised as having medium to low suitability to provide roosting habitat for bats are retained. There are set back distances of at least 10m of the River Lagan. Accordingly there is No Significant Effect on bat roosting, foraging or commuting habitat. The proposed landscape planting is likely to have a significant positive effect for bats at a site level;
- Otter – Given that the Lagan adjoins the site the Phase 1 Habitat survey was extended to examine the potential for otter. There was no evidence of otter recorded. The applied 10m buffer to the Lagan is a further safeguard and the proposal will result in no significant effects;
- Newt – A drainage channel within the site was considered in respect of its suitability to provide habitat for smooth newt, scoring below average. There were no other features within the site suitable to support newts and the species was excluded from further assessment;
- Badger - The proposed development has been designed to avoid damage and disturbance to badger setts. A 25m ecological exclusion zone will be maintained between all infrastructure and badger setts. EEZ will be maintained between all infrastructure and all badger setts located on the site;
- Birds – The application of a 5m buffer between hedgerows and proposed infrastructure, and the applied 10m separation distance to the River Lagan, together with retention of the grass sward beneath solar panels means there is no significant effects on birds. The landscaping proposals will provide additional foraging and roosting habitat for birds and have a significant positive effect for biodiversity at a site level.

### 4.3.2 Archaeology and Cultural Heritage

The archaeological and cultural heritage assessment completed to accompany the planning application has concluded that there will be no predicted direct impacts on recorded cultural heritage sites due to the proposed development. The design has emerged to apply a buffer zone around an area identified in the archaeological assessment as a possible circular enclosure associated with a rath (DOW020:005).

It is acknowledged that the site is set within a large and undeveloped parcel of agricultural land with the potential for previously unrecorded archaeological features and set within a wider landscape with other recorded sites and find spots. Accordingly the lands are considered to possess a moderate to high potential

for unrecorded sub-surface archaeology. As such the study recommends a programme of geophysical survey followed by targeted testing post grant of any emerging permission and prior to the commencement of works on site. This is a standard approach which is routinely applied by Planning Condition.

### 4.3.3 Landscape and Visual Impacts

A Landscape & Visual Impact Assessment (LVIA) has been undertaken based on the relevant guidance described in the Guidelines for Landscape and Visual Impact Assessment, Third Edition (The Landscape Institute and Institute of Environmental Management & Assessment, 2013) (GLVIA3) and the Technical Guidance Note 06/19 Visual Representation of Development Proposals (The Landscape Institute, 2019).

The LVIA Report is submitted as supporting environmental information with the planning application.

As per Section 4.2.3, the Proposed Development is located at the boundary of Lough Neagh Basin RLCA 14 and Down Drumlins and Holywood Hills RLCA 22. The predicted significance of landscape effect for RLCA 14 and 22 during the operational phase is Minor and not significant as predicted effects are limited in extent by the low-lying flat nature of the proposed site and surrounding topography, surrounding trees, built form in the surrounding landscape and will be barely perceptible in the wider landscape and will be locally perceived with existing large, shed type developments that are common across this RLCA locally. The Proposed Development is also not located in proximity to any of the sensitive key landscape features identified by NIEA within RLCA 14 and 22.

The Proposed Development is located within three landscape character areas identified as Craigavon Plateau LCA 79, Donaghcloney Valley LCA 80 and Upper Ballinderry Plateau LCA 109. The predicted significance of landscape effect for LCA 79, 80 and 109 during the operational phase is Minor and not significant as predicted effects are limited in extent by the generally flat low-lying nature of the proposed site within an extensive landscape, the topographical changes across each of the LCAs, extensive screening vegetation in the wider landscape, built form to the west and north of the existing site and will not be perceptible in the wider landscape of the LCAs apart from in close proximity. The Proposed Development is also not located in proximity to any of the sensitive key landscape features identified by NIEA within LCA 79, 80 or 109.

It is already set out in Section 4.2.3 that the Proposed Development will not have any significant effect on any landscape designations including; AONB's; Historic Parks & Gardens; Ulster Way; or Way Marked Trails; due to distance from these features and/or intervening topography and vegetation.

A total of 11 viewpoints have been assessed, for both construction and operational phases of the Proposed Development and Photomontages are included as Appendix B of the LVIA. Three viewpoints that are in close proximity to the Proposed Development (VP1; VP3 and VP10) have been assessed as having significant effects during the operational phase before the proposed mitigation measures have been implemented. Once the mitigation measures have been implemented the predicted effects reduce to Moderate and no significant effects. A combination of distance of view and the screening effects of vegetation and topography reduce the significant effects for the majority of views.

Assessment of effects on residential properties has taken place for properties on Inn Road Dromore Road, New Forge Road and Drumlin Road at locations where properties may have potential filtered views in relatively close proximity. Where properties are in proximity to the Proposed Development landscape mitigation has been proposed to strengthen and reinforce existing hedgerows and trees and overall, no significant visual effects are predicted. At distances greater than 500m the Proposed Development is well screened in views and at such longer distances no significant effects are predicted for views from residential properties.

Overall, the surrounding landscape and its visual resources has the ability to accommodate the changes associated with this type of development.

### 4.3.4 Flood Risk and Drainage

A Flood Risk and Drainage Assessment has been undertaken and the detailed report is submitted as supporting environmental information with this planning application.

The assessment considered the four main sources of flood risk identified in Planning Policy Statement 15, namely: flooding from rivers; coastal flooding; surface water flooding; and potential flooding from impounded water bodies such as reservoirs and dams.

The assessment also took account of DfI Water & Drainage Policy Division published 'Technical Flood Risk Guidance in relation to Allowances for Climate Change in Northern Ireland' (February 2019) which sets out the DfI Rivers approach to climate change in flood risk management.

The flood map shows that small areas of the site are affected by the 1% AEP floodplain of the River Lagan. Some of the panels will be located within the identified floodplain. It is only proposed to construct the solar arrays in areas with flood depths less than 0.75m. To mitigate the flood risk, a minimum freeboard of 300mm will be applied between the solar panel and the 1% AEP flood level, ensuring a minimum panel height of 1.2m. This is illustrated on the project layout submitted as part of the planning application pack.

Where the panels are located within the river floodplain, the impact on flood risk elsewhere is considered negligible since the footprint of the stanchions on the ground is insignificant in relation to the floodplain area. The flood map does not show flooding for the other minor watercourses which flow through the site. A buffer of 5m has been used in the siting of the panels either side of any watercourse/ drain, and the panels will be above the ground by typically 700mm (within a range of 500mm to 1.2m). These measures will ensure that the risk of flooding to the panels is minimised. The substation and inverter stations must avoid flooding and are located on higher ground, outside of the floodplains. The proposed development will therefore not increase the risk of river flooding elsewhere and there is no impact on the floodplain.

The flood map shows some areas of potential surface water flooding within the site, mostly at depths of less than 0.3m although some exceeding this up to 1m. Where there are minor areas of overlap panels will be raised adequately above the surface water depths, as is common practice. The proposed development will therefore not be at risk of surface water flooding. Where the panels are located within the surface water area, again the impact on flood risk elsewhere is considered negligible since the footprint of the stanchions on the ground will be insignificant in relation to the area. The stanchions are small in cross-sectional area and spaced at a distance apart, with the actual area of pile stanchions making up less than 0.2% of the total site area. The proposed development will therefore not increase the risk of surface water flooding elsewhere.

The solar panels will not form large impermeable surfaces. The arrays are arranged in well-spaced rows with open avenues in between. In addition, there are spaces between each of the panels as they are affixed to the supporting structure, allowing rainwater to pass through the arrays and disperse evenly. These design features combine to ensure permeability within the solar panels. Rainfall will fall onto open ground as usual or run-off the panels through the gaps into the ground to be dispersed by the same routes that are currently in place. Owing to the retention of vegetation there will not be a measurably increased runoff as a result of installation of the panels. Any flows that do not infiltrate the ground will drain to the existing drainage ditches within the site. The overall drainage regime for the site will not therefore be significantly altered as a result of the proposed development. There will be no storm water drainage installed as part of the development, and no discharge consents are required.

There is no modification of watercourses associated with the proposal, and as stated in Section 4.2.4, coastal flood or reservoir inundation risk does not apply.

Accordingly, the Proposed Development has a low risk of flooding and will not increase the risk of flooding elsewhere and is demonstrably in accordance with the requirements of Planning Policy Statement 15.

### 4.3.5 Noise Impacts

A Noise Impact Assessment (NIA) has been undertaken in respect of the proposed development and the detailed report is provided as environmental information in support of the planning application.

The noise assessment has considered the following relevant policy and guidance documents including:

- Noise Policy Statement for Northern Ireland (NI), Department of Environment (2014);
- World Health Organisation (WHO) – Guidelines for Community Noise (1999, 2009 and 2018);
- British Standard BS8233: 2014 Sound Insulation and Noise Reduction for Buildings – Code of Practice (BS, 2014); and
- British Standard BS4142:2014 Methods for Rating and Assessing Industrial and Commercial Sound (BS, 2014); and

Baseline sound levels were determined in an extended continuous survey undertaken at three locations chosen to be representative of noise-sensitive receptors (residential dwellings) in the vicinity of the site.



Monitoring took place between 01<sup>st</sup> June 2023 and 07<sup>th</sup> June 2023. The assessment considered the potential for noise impacts during daytime and night-time hours, concluding that at all times there are no adverse impacts predicted.

### 4.3.6 Glint & Glare

A Glint & Glare Assessment was undertaken by Pager Power who are specialists in this field. The detailed report is provided as supporting environmental information with the application.

Pager Power has reviewed existing guidelines and the available studies in the process of defining its own glint and glare assessment guidance and methodology. This methodology defines the process for determining the impact on road safety, residential amenity and relevant aviation interests.

Pager Power's approach is to undertake geometric reflection calculations and, where a solar reflection is predicted, consider the screening (existing and/or proposed) between the receptor and the reflecting solar panels. The scenario in which a solar reflection can occur for all receptors is then identified and discussed, and a comparison is made against the available solar panel reflection studies to determine the overall impact.

It is demonstrated within the assessment that:

- Roads – Solar reflections are geometrically possible towards a 2.1km section and 1.7km section of the B2 and a 2km section of the B9. No significant impacts are predicted on any of the modelled road sections;
- Dwellings – 247 dwelling locations were assessed. The modelling exercise revealed that of these 247 properties, solar reflections were geometrically possible towards 179 dwellings. They were not possible towards the remaining 68 properties;

Where solar reflections were possible the assessment did not predict any significant effects. Moderate effects were predicted at six properties. Mitigation measures in the form of landscaping - which is an inherent part of the scheme – negates these impacts. The mitigation measures recommended in the Glint and Glare report are provided within the landscape mitigation plan which forms part of the planning application pack; and

- Aviation Assessment – An assessment of Tandragee Airstrip and Tarsan Lane Microlights Airfield did not result in any predicted significant effects.

To reaffirm, the assessment concludes there are no significant glint and glare effects on road safety, residential amenity or relevant aviation interests.

### 4.3.7 Traffic and Transport

A Transport Statement (TS) assessing the impacts of the Proposed Development has been undertaken and is provided in support of this Application. Three access points are proposed to serve the site during both construction and operation as follows:

- Proposed Access 1 – Springhill Road;
- Proposed Access 2 – B2 Dromore Road; and
- Proposed Access 2 – B9 Drumlin Road.

The purpose of the TS is to quantify the volumes of trips associated with the Proposed Development and establish how the local road network can accommodate this increased demand. Measures to minimise or mitigate the impact of these movements are outlined where required.

The TS was prepared in accordance with the Transport Assessment (TA) guidelines document (July 2006) published by the Department for Infrastructure (DfI).

The proposed development comprises of a construction and operational phase, with the most onerous phase for vehicular movements associated with the construction phase. During the operational phase the facility will be unmanned and vehicle movements will be associated with routine maintenance and inspection only, anticipated to comprise typically of one vehicle (Transit Van or similar) trip per week.

To determine the level of traffic on the surrounding road network in the vicinity of the site, Automatic Traffic Count (ATC) surveys were undertaken between Saturday 17<sup>th</sup> to Friday 23<sup>rd</sup> June 2023 inclusive. The ATC

recorded 24hr classified traffic flows, including Heavy Good Vehicle (HGV) volumes, and speed profiles at three locations chosen to be representative of the proposed access locations.

It is anticipated that the construction phase will occur across a period of 40 weeks. Overall, the delivery of materials to site will generally be balanced uniformly across the project's construction period, however with a peak at week 10 (associated with stone delivery) and week 20 (delivery of the PV panels). During weeks 10 and 20 there is expected to be 9 daily HGV deliveries to the site. During the other weeks deliveries will balance at 6 per day. Deliveries are expected to occur regularly and will be scheduled to prevent conflict between vehicle arrivals and departures, including queueing and delays within the road network.

The proposed development requires a total of 25 construction staff across the three site portions of the scheme. Construction staff will typically arrive in teams of 4-5 persons in working vans, as per most construction sites. Allowing for 20 staff arriving in teams of 4 and 5 staff arriving in singular vehicles this equates to 10 staff vehicles arriving at the site.

the overall construction traffic (staff & HGV) equates to an increase of 2.7% on Springhill Road, and 0.8% on B2 Dromore Road and 1.6% on B9 Drumlin Road. The increase in flows is considered a negligible increase in trips and will not result in any increase in peak hour trips.

Construction increases are temporary in nature, the changes in traffic described are also entirely within the range of normal fluctuations in daily traffic that could be expected on the road network. Therefore, against the underlying capacity of these roads.

The operational phase is anticipated to have a very low traffic generation, equating to 1 no. vehicle trip every week for maintenance purposes.

In addition, a CTMP will be a condition of any planning consent and would include measures to control the routing and timing of vehicles entering/egressing the Proposed Development site as to avoid adverse impacts on the local road network.

The conclusions drawn in the TS are that the impact of the traffic associated with the construction of the Proposed Development can be appropriately accommodated, with no significant adverse impact on road safety for the existing users of the surrounding road network.

## 5 CONCLUSIONS

This Report identifies suitable and relevant information regarding the likely impacts associated with construction and operation of the Proposed Development.

A review of EIA Regulations confirms that this is not Schedule 1 development. Rather the Project constitutes Schedule 2 development requiring a determination as to whether EIA applies.

When making a Determination as to whether EIA applies under the Regulations, the Authority must have regard to the relevant selection criteria set out in Schedule 3 under the broad headings of, Characteristics of Development, Location of Development and Characteristics of the Potential Impact.

This Report summarises the conclusions of a suite of environmental reports undertaken as part of the application confirming that:

- The site is not located in an environmentally sensitive area;
- The sensitive design approach will appropriately mitigate the potential for impacts on any identified environmental constraints; and
- That the Proposed Development will not result in significant environmental effects.

Reports submitted to accompany the planning application comprise:

- Ecological Impact Assessment;
- Transport Statement;
- Landscape and Visual Impact Assessment;
- Glint and Glare Assessment;
- Archaeology and Cultural Heritage Assessment;
- Flood Risk Assessment;
- Outline Construction Environmental Management Plan; and
- Noise Impact Assessment.

The application is also accompanied by a:

- PACC Report; and
- Planning / Design and Access Statement.

The individual assessments and experience as well as analysis of other similar projects approved in Northern Ireland and elsewhere in UK, demonstrate that the proposed development will not give rise to unusually complex or potentially hazardous environmental effects where expert and detailed analysis of such effects would be desirable over and above the assessment and analysis currently provided in that regard.

It is our considered view that the assessments provided in support of this application provide sufficient environmental information to allow a full and proper assessment of the environmental effects of the proposal without the need for an Environmental Impact Assessment.