# Bogganstown Solar PV installation

## Project update & FAQs

**August 2023**

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# 1 Introduction

During the planning process, residents raised a number of questions about the proposed Bogganstown solar PV installation. We have updated our project FAQs. We hope you find this information useful.

# 2 Community benefit fund

Energia believes local communities deserve to benefit from the construction and operation of our renewable energy sites. The Bogganstown solar farm will operate a substantial community benefit fund for the lifetime of the project, which will support community groups, voluntary organisations and environmental projects in the local area. The solar farm will begin allocating project grants, based on an annual application process, one year after the start of commercial operation.

**Please note that the community benefit fund is totally separate from any other source of local investment required as a condition of planning consent, such as the Local Authority Development Contribution or business rates.**

Energia is proud to work with the Community Foundation for Ireland (CFI), Community Foundation NI (CFNI) and Fermanagh Trust who administer funds on our behalf across the island of Ireland. Our benefit schemes are designed in conjunction with the local community to ensure that our funding has a positive and lasting impact. Our total benefit fund investment to date is approaching €4 million - and growing.

Where we operate a number of renewable energy developments in close proximity to one another, we look at the potential of combining funds to provide a more impactful level of community investment, whilst always prioritising grant applications from the immediate area around each site. (For example, in the case of our 'Tyrone Three' fund in Northern Ireland, we're able to offer community groups an opportunity to apply for much larger capital grants, whilst still making smaller amounts available for a wide range of activities and projects. To find out more visit our community benefit fund page on our website: **www.energiagroup.com**.)

# 3 Working with schools

Energia have a number of solar farm projects across County Meath and we are looking to set up an additional community investment scheme which offers to fund the installation of rooftop solar

panels for some of the rural schools closest to our projects. This scheme would promote energy efficiency and sustainability – two of our top priorities as a major utility company specialising in renewable energy development and innovation.

# 4 Construction traffic

The Bogganstown solar PV installation will consist of three separate parcels (northern, central and southern). An individual access point is provided for each parcel:

- Northern parcel: Access point 1
- Central parcel: Access point 2
- Southern parcel: Access point 3

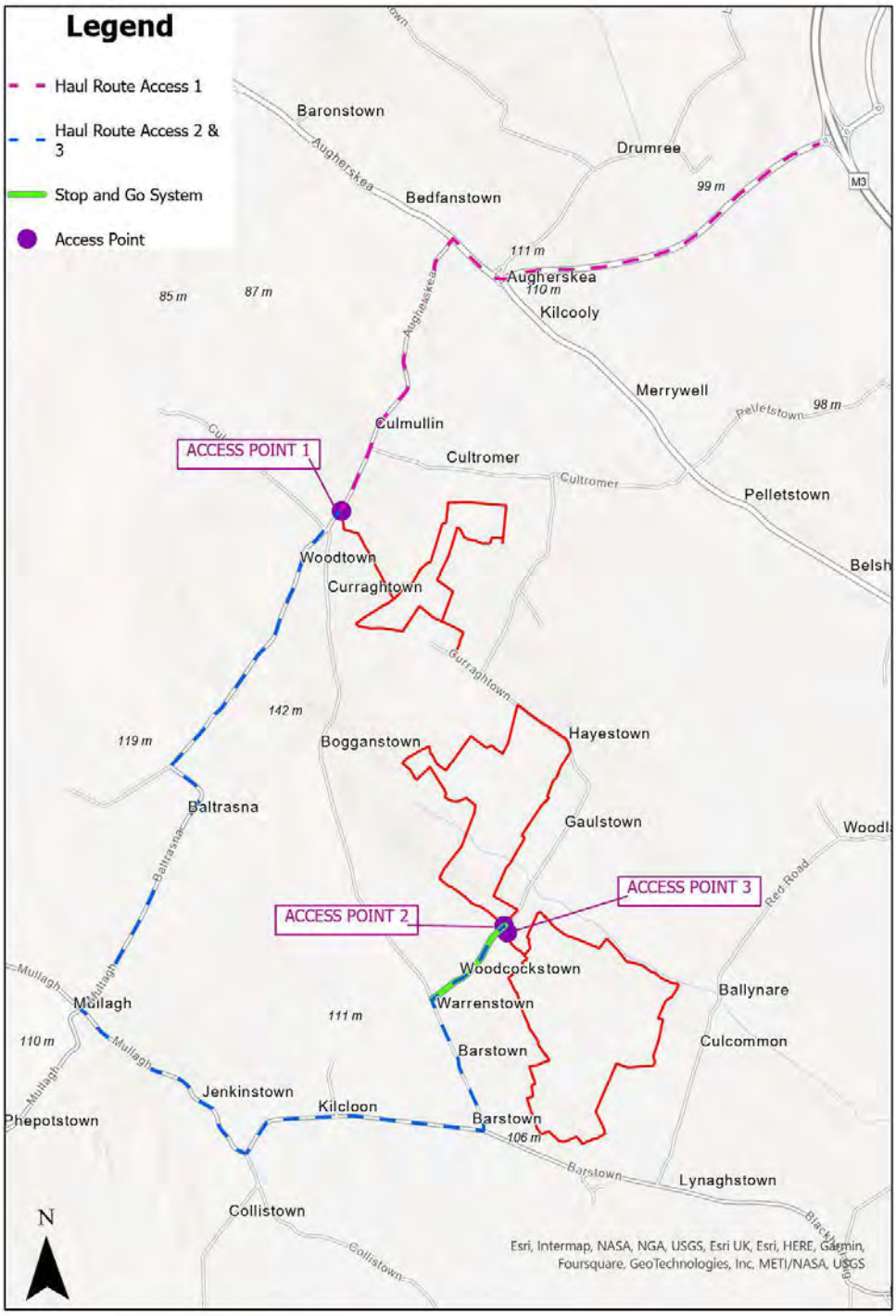
During the peak construction period, it is estimated that there will be up to 20 daily HGV deliveries in total. **Please note that this is the maximum number of deliveries across all three site access points. The number of traffic movements on the local roads leading to site access points 2 and 3 will be significantly lower.**

In order to minimise disruption, Energia Renewables will agree a Construction Traffic Management Plan (TMP) with the local Planning Authority regarding delivery scheduling, restrictions and limitations.

The TMP will include details on:

- Delivery restrictions will remain in place throughout the construction phase. Construction material deliveries (HGVs) will be restricted to quiet periods (outside rush hour/school drop off/collection times). Energia will liaise with local schools to ensure that delivery schedules are appropriate.
- Energia will operate a delivery booking system to assess daily delivery schedules for the week ahead to minimise disruption.
- Temporary signage will be used to direct construction traffic to site. The site contractor will provide banksmen, or signallers, to assist with the manoeuvring of delivery vehicles to and from site.
- Hauliers will be required to contact the site manager to confirm the time for a delivery to ensure that the team are fully prepared on site in advance of its arrival.
- Sufficient periods of time will be scheduled between deliveries to allow for unforeseen delays or overruns (such as loading/unloading) in order to avoid having vehicles waiting to access the site.

## Haulage routes and site access points 1, 2 & 3



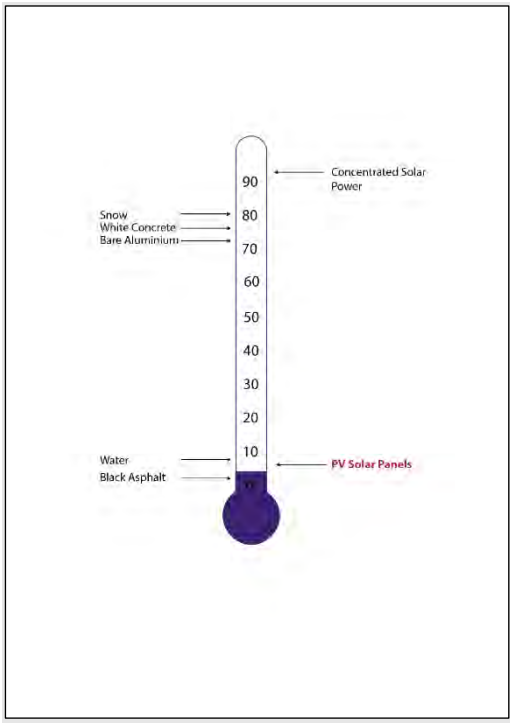
# 5 Glint and glare

A common misconception about solar PV panels is that they create glare, posing a nuisance for residents and a safety risk for pilots. While in certain situations the glass surfaces of solar PV systems can produce a glint, or momentary flash of bright light and even a longer-lasting glare, it should be remembered that the panels are designed to absorb, rather than reflect light.

The panels are constructed of dark-coloured materials and are covered with anti-reflective coatings, which emit ‘specular’ reflectance rather than a ‘diffuse’ reflectance. A number of studies have shown that photovoltaic panels have similar reflectance characteristics to water. Similar reflectance levels commonly found in rural environments include shed roofs, lines of plastic covering used in cropping and wet roads.

As part of the planning application, a detailed assessment was carried out on potential impacts on ground and air-based receptors, including residential dwellings and roads (within 1km) and aviation (within 30km). This assessment concluded that the Bogganstown solar farm would have no impact on road and air-based receptors.

**Percentage of reflected solar**



# 6 Noise

*Operational Phase*

Solar panels themselves do not generate noise. The only source of noise from solar farm infrastructure are from the MV power stations and inverters.

The proposed development will be in operation during daylight hours only. The noise levels of the MV Power Stations will change throughout the day, reaching their peak when the solar farm is generating maximum power, usually when the sun is high in the sky just after midday.

A detailed noise assessment was carried out for over 100 properties, including two residential areas within 500m of the proposed development. It was concluded that noise associated with the proposed development would be negligible and is significantly below the existing baseline of 35dB.

*Construction Phase*

During the construction phase of the development, noise generated on site will be similar in nature to other construction sites, road works or agricultural operations.

No significant noise-generating activities, such as rock breaking or impact piling, are likely to be required on site.

Construction noise levels will be managed appropriately and noise mitigation measures will be employed where necessary:

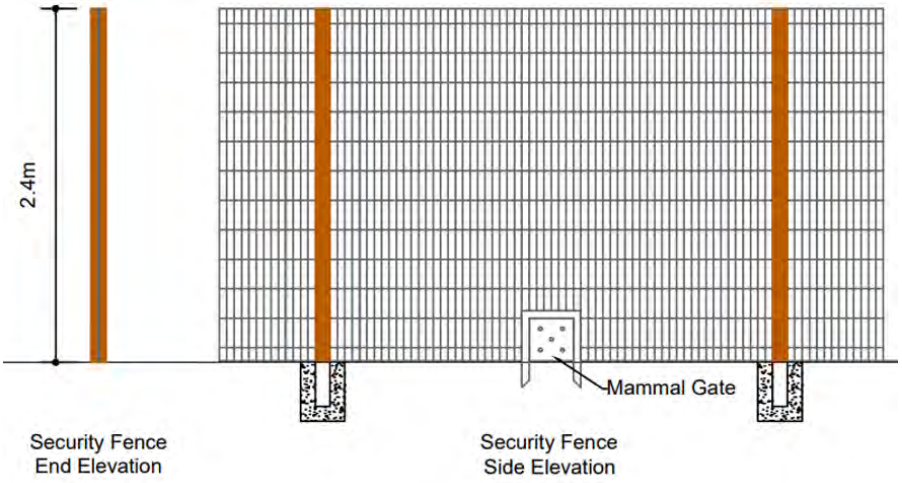
- Noise generating equipment will be located as far as possible away from noise sensitive receptors (e.g., dwellings)
- Noise complaints will be investigated
- If necessary, temporary barriers or screens may be erected around equipment, such as generators or compressors
- All construction traffic will have effective and well-maintained silencers
- Operators of mobile equipment will be instructed to avoid unnecessary revving of machinery
- Equipment and technology with low noise level generation will be selected where possible

# 7 Security fencing

The proposed solar farm will be secured by perimeter fencing with access gates. This will be deer fencing with wooden posts at intervals of around 3.5m. The fence will be circa 2.4m high with a gap of circa 0.1m also included at regular intervals to allow small mammals to pass underneath.

Deer fencing has been selected due to its relative low visual impact and minimal impact on natural surface water flow.

**Security fencing diagram**




**Example of deer fencing**

# 8 CCTV and lighting

CCTV cameras will be installed around the perimeter of the solar farm to enable remote surveillance of the site, using motion-sensored infrared cameras for effective night-time operation without the use of lighting. Cameras will be strategically positioned to ensure they do not breach residents' privacy.

**Please note: the solar farm will not be lit up at night.**

# 9 Visual impact & screening

During the planning process, residents wanted to know how long it would take for the proposed hedgerow and planting to grow and mature. It is our intention to propose to Meath County Council that a level of semi-mature/mature hedgerow and screening should be planted within the 1st planting season of the operational phase of the solar farm. This will ensure that mitigation measures have maximum effect from the first year of commercial operation.

# 10 Human health

Some residents have expressed concerns about the electric and magnetic fields (EMFs) found near electricity lines and cables. When electric current flows, EMFs are produced but register in the extremely low frequency end of the electro-magnetic spectrum. They occur in the home, in the workplace or anywhere we use electricity. Natural sources of EMFs include the earth's geomagnetic field and electric fields from storm clouds. The consensus from health and regulatory authorities is that extremely low frequency EMFs do not present a health risk.

# 11 Ecology

The Bogganstown solar farm Biodiversity Management Plan has been designed to ensure that the site will have a net beneficial effect for local wildlife. This plan includes the following measures:

- Planting of new hedgerows, species-rich grassland, wildflower meadows and wet wildflower meadows
- Bug hotels to provide safe habitat for solitary bees, ladybirds and other insects

## 12 Solar panels: end of life

Solar modules are governed by the Waste Electrical and Electronic Equipment (WEEE) Directive which requires manufacturers to fund the collection and responsible disposal of end-of-life materials. Panels will be removed from the site by a licensed contractor for the re-use, recycling or waste disposal of all components. Facilities are now available which are dedicated to fully recycling solar panels. Any elements of the solar farm that are not suitable for recycling will be disposed of in an appropriate manner. However, it should be noted that recycling technology and infrastructure is continuing to improve.

## 13 Use of agricultural land

One of Ireland's Climate Action Targets is to install a total of 8GW of solar PV by the end of the decade. If this target is to be met, it is anticipated that solar farms will require an area of 24,000-26,000 acres across the country. This constitutes approximately 0.2% of Ireland's total agricultural land.

The Bogganstown site covers 422 acres, which constitutes approximately 0.003% of Ireland's total agricultural area.

## 14 Contamination

PV solar panels do not contain harmful chemicals or gases. These panels are comprised mainly of silicon (which originates from sand), aluminium and glass. They are solid state materials and, in the case of panel breakage, there is no danger of "leakage" of fluids or gas.

Solar farms have been established within the UK and Ireland for over 20 years. There is no evidence that the rainwater run-off from solar panels poses a threat to groundwater aquifers. The water will fall as rain and run off the panels, as it would a sheet of glass.

No pesticides will be used or needed and there will be only very occasional mowing/trimming on the site to maintain internal hedging.

Pollinator-friendly grasses planted beneath the solar panels will create new habitats for bees, birds, insects, small mammals and other wildlife. This ground cover will be low growing and will require little maintenance.

## 15 Energia Renewables and Energia Group

Energia Renewables are part of the wider Energia Group. We are committed to our customers and trusted by thousands of homes and businesses across the island of Ireland to meet their needs in an evolving energy environment.

We are a leading developer and operator of 15 onshore wind farm sites across the island of Ireland, generating over 300MW of green electricity. The Group's ongoing €3bn 'Positive Energy' investment programme is developing onshore and offshore wind, solar, battery storage, bioenergy and green hydrogen production.

It is anticipated that this renewable energy programme will add 1.5 GW of additional renewable capacity to the system by 2030, facilitating the achievement of Climate Action targets.

We pride ourselves on our reputation for being responsible developers and good neighbours in the communities where we operate. To find out more about Energia Group and our renewable energy projects and community benefit funds, visit our website: **www.energiagroup.com.**

## 16 Contact us

For further information, please email our Community Liaison team at **clo@energia.ie**.

**Use the QR code to visit our Culmullin solar projects and Bogganstown solar farm web page at www.energiagroup.com**

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