

INTRODUCTION

ABOUT THE DEVELOPMENT



SunMind Northern Ireland (the Applicant), would like to welcome you to this public information event being undertaken as part of a Pre-Application Community Consultation (PACC) process in respect of a proposed Solar Farm (up to 24MW) on lands approximately 1.1km west of Belfast International Airport main terminal building and immediately west of No.6 Seacash Road and south of No.26 British Road, Crumlin.

Approach to Public Consultation Process

- This PACC process is being undertaken to:
- Enhance the local community understanding of the emerging proposals;
 - Encourage community and stakeholder engagement prior to planning application submission; and
 - Provide an opportunity for the community and stakeholders to comment and shape the evolution of the project.

The Project Team

DEVELOPER SunMind SAS	PLANNING RPS	LANDSCAPE & VISUAL IMPACT ASSESSMENT RPS
ECOLOGY RPS	FLOOD RISK AND DRAINAGE RPS	ARCHAEOLOGY John Cronin & Associates
HIGHWAYS RPS	GLINT & GLARE Pager Power	NOISE RPS

It is important to note that taking part in this consultation process does not affect your statutory rights to make representations to the Planning Department in Antrim and Newtownabbey Borough Council in respect of the application when it has been submitted.



What is Solar PV?

Solar Photovoltaic (PV) energy generation works by absorbing the sunlight into the PV cells in the solar panels, converting sunlight into electricity. Solar cells contain a semiconductor which absorbs sunlight, transferring the energy to negatively charged particles called electrons which flow through a semiconductor as electrical current. The current then flows through the grid-like metal contacts on the solar cell before it travels to an inverter. The inverter converts the direct current (DC) to an alternating current (AC), which flows into the electric grid and, eventually, connects to the circuit that is your home's electrical system. As long as sunlight continues to reach the module and the circuit is connected, electricity will continue to be generated.

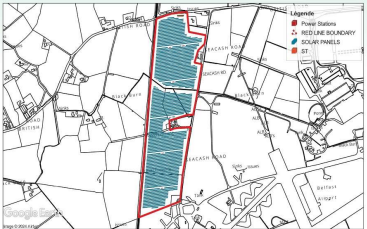
Photovoltaic panels can use direct or indirect sunlight to generate power, though they are most effective in direct sunlight. Solar panels will still work even when the light is reflected or partially blocked by clouds.

What are the benefits of Solar PV

- Solar PV plays an important role in reducing greenhouse gas emissions and mitigating climate change in line with the Governments Net Zero Targets.
- It reduces our dependence on fossil fuels thus enhancing national energy security.
- Equivalent to the energy needs of 6,520 homes.
- CO2 savings of over 10,000 tons per year.
- Solar Panels are long lasting which ultimately is more sustainable through benefits to the environment, with less need for replacement and maintenance.
- Solar energy farms are a benign form of energy production - they do not produce any pollution or emissions.
- Solar technology is clean, quiet and visually unobtrusive.
- The installation period for a solar farm is shorter than for other forms of renewable energy resulting in less potential for disruption to the local community.
- Solar production is most efficient during the day which accords with peak energy demand. It also complements wind energy generation, most of which occurs at night. Presently wind energy generation accounts for the over-whelming amount of renewable energy creation in Northern Ireland.
- There will be opportunities for construction and operational phase employment.
- Solar PV facilities generate substantial business rates for local authorities.
- Creation of a solar installation provides opportunities for local ecological and biodiversity enhancement.

Proposed Location

The Proposed Development lies approximately 1.1km west of Belfast International Airport main terminal building, immediately west of no. 6 Seacash Road and south of no. 26 British Road, Crumlin. The Seacash Road runs parallel to the site's eastern boundary. British Road runs parallel to the site's northern boundary. A railway line runs along the western boundary of the site.



Proposed Project Elements

A solar photovoltaic (PV) installation is made up of a number of physical components.

Solar Panels

Within the land parcel, the key element of the Proposed Development will comprise the installation and layout of solar panels. Panels are fixed to face south and will not move to follow the path of the sun. They are composed of photovoltaic cells and are designed to maximise the absorptency of the sun's rays and minimise any potential for glint or glare effects. Panel rows (arrays) are typically separated by a distance of between 2.4 to 3 metres depending on topography.

Arranged in modules comprising two in portrait or four in landscape, panels are mounted on frame tables which will follow the contours of the landscape. There will be no re-profiling of existing topography to facilitate the development.



Other Ancillary Project Components Considered

- **MOUNTING SYSTEM** - panels will be mounted on steel/aluminium posts or frames that are typically pushed or screwed into the ground to c.15m depths. Steel posts may also be attached to concrete shoes, a maximum of 400mm above ground level.
- **STRING INVERTERS** - these are placed underneath the panel arrays and seek to minimise the extent of Low Voltage underground cabling required to connect the inverters to the PV arrays. Inverters convert the Direct Current (DC) electricity produced by the panels into Alternating Current (AC) electricity for transfer to the transformer stations, then on-site substation and finally onwards to the electricity grid network;
- **TRANSFORMER STATIONS** - these will be distributed across the site to consolidate the low voltage output from a group of inverters and step up the voltage to a level suitable for grid transmission ensuring efficient power delivery. These are secured buildings of approximate dimensions of 7m x 3m x 2.6m, with controlled access and comprise each a step-up transformer, switchgears, protection systems among other components. The outputs of all the transformer stations of the site will be regrouped in an on-site substation.
- **ON-SITE SUBSTATION** - this will provide the grid connection mechanisms, to connect into the main grid substation. It will contain the site switchgear which provides the safety mechanism to protect the solar farm from any fault in the grid and vice versa, acting as the main 'fuse box' for the proposal.
- **PERIMETER FENCING** - comprising post and wire (deer) style fencing approximately 2.5m high;
- **CCTV CAMERAS** - for site security purposes. These will be directed inwards towards the solar farm to ensure privacy and no impacts on residential amenity;
- **ACCESS** - from Seacash Road to the east;
- **INTERNAL ACCESS TRACKS** - A small number of permeable stone access tracks will be proposed throughout the land to provide access to each of the transformer stations during occasional maintenance; and
- **LANDSCAPING PROPOSALS** - A tailored landscaping scheme will be integrated into the emerging layout to augment existing landscaping, enhance biodiversity, and mitigate potential visual impacts.

Construction, Operation & Decommissioning

It is anticipated that the Proposed Development will be constructed over an 8-12 month period.

Thereafter, the Solar Farm will likely 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.

During operation the site will be unattended, and only occasional access will be required for maintenance or cleaning purposes.

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

All project elements will be removed from site and where possible will be recycled. The site will be restored leaving no permanent visible trace. The solar panels will be removed from the site in the same way they were transported to the site originally.



DESIGN PRINCIPLES

Environmental Assessment

The forthcoming planning application will be supported by a tailored set of accompanying environmental reports which will assess the potential impact of the proposed development against a range of environmental considerations. Ecological Surveys, Watercourse Surveys and Noise Modelling are already underway which will help inform the emerging site layout.

Transport Statement

It is proposed to access the site off Seacash Road via an existing or potentially relocated access point. A Transport Statement will examine the impact of construction traffic on the local network. Given the low traffic volumes associated with the proposal, it is anticipated that the impacts will be insignificant. During operation traffic movements will be confined to visits by car/van for maintenance purposes.

Flood Risk Assessment

A Flood Risk Assessment will examine the risk of surface water and river flooding to the development. A review of the baseline information reveals that parts of the site may be affected by fluvial (river) and surface water flooding. No critical electrical infrastructure (substation / inverters) will be placed in areas affected by flooding. Solar panels are compatible for use in areas of surface water flooding depending on the depth as they are raised off the ground.

Proposals will not affect surface water runoff and there is no significant increase in the risk of flooding as limited impermeable hard surfacing is required.

Ecological Impact Assessment

An Ecological Impact Assessment has been carried out in order to establish the existing ecological baseline on site. SunMind's first design principle in this regard is to mitigate any potential impacts by avoiding their location.

Archaeology and Cultural Heritage Assessment

There are no built or cultural heritage assets within or overlapping the site. There are however, features within 1km of the site boundary. An Archaeological and Cultural Heritage Assessment will accompany the planning submission examining the associated impacts of the proposal on these features.

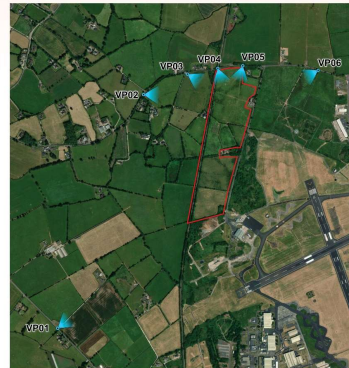
Glint and Glare Assessment

A detailed Glint and Glare Assessment will be undertaken considering ground-based receptors such as roads and dwellings surrounding the site. Glint and Glare effects from Solar PV panels are rare as they are designed to absorb, not reflect, sunlight.

Landscape and Visual Impact Assessment

A Landscape and Visual Impact Assessment (LVIA) will be prepared and submitted as part of the emerging planning application. The LVIA will be supported by several photomontages from key views surrounding the site.

The proposed viewpoints for assessment are set out below:



The dedicated project webpage will remain live throughout the duration of the project. The QR code below can be used to complete an online questionnaire about the project.

We would be grateful if any comments or feedback can be shared with the project team by close of business 10th December 2024.

Outside of the above processes, should anyone wish to speak directly to the team then requests can be made using the contact details below:

Email: kieron.mcauley@rps-tetratech.com
Tel: 028 9066 7914
Postal Address: 74 Boucher Rd, Belfast BT12 6RZ



Please note - Any submissions made as part of the community consultation stage are not presentations to the Planning Authority and do not in anyway affect your statutory right to make representations to the Planning Authority, with regard to any application which may be submitted in due course.

