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Dear Sir or Madam,

REQUEST FOR SCREENING OPINION UNDER REGULATION 6 OF THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017

PROPOSED SOLAR PHOTOVOLTAIC FARM, AND ASSOCIATED INFRASTRUCTURE - LAND NORTH OF CANEWDON ROAD / LARK HILL ROAD, SOUTH FAMBRIDGE, ROCHFORD, ESSEX

We write on behalf of our client, Low Carbon UK Solar Investment Company Ltd to formally request from Rochford District Council (the 'Council') an Environmental Impact Assessment ('EIA') Screening Opinion under Regulation 6 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regs').

The request for a Screening Opinion relates to a proposed solar photovoltaic ('PV') farm and associated infrastructure (the 'Proposed Development') on approximately 157 hectares ('ha') of land to the north of Canewdon Road / Lark Hill Road, South Fambridge, Rochford (the 'Site'). It is estimated that the solar panels would generate up to 49.9 Megawatts ('MW') of electricity.

It is important to note that only a small portion of the site would need to contain panels in order to generate the above output, however, the entire site is being screened in order to retain flexibility so that the developer may identify the most and least suitable areas for panels going forward, based on input from the Council, the local community and environmental specialists.

The Proposed Development responds to identified need by providing a renewable energy supply that would reduce carbon emissions and assist in establishing a greater diversity of energy sources in the UK.

REQUIREMENT FOR EIA

The EIA Regulations cover two main types of development:

- Schedule 1 – identifies all types of projects for which EIA is mandatory; and
- Schedule 2 – identifies the types of projects for which EIA may be required if the project in question is considered likely to give rise to significant environmental effects.

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The Proposed Development does not constitute Schedule 1 development as for energy projects, this applies to thermal power stations with a heat output of 300 MW or more and nuclear power stations.

It is considered that the Proposed Development constitutes Schedule 2 of development under Section 3(a) of Schedule 2:

“industrial installation for the production of electricity, steam and hot water (unless included in Schedule 1”

Development proposals described under Schedule 2 require an EIA if they are considered likely to have significant effects on the environment by virtue of factors such as nature, size and location.

The Site, at approximately 157 ha, exceeds the applicable threshold of 0.5 ha site area. Subsequently, there is a requirement under provisions of the EIA Regs to screen the Proposed Development in order to determine whether or not an EIA is required.

SCREENING REQUEST SCOPE

Regulation 6(2) of the EIA Regs requires a request for a screening opinion to be accompanied by:

- a plan sufficient to identify the land;
- a description of the development; including in particular a description of the physical characteristics of the development and a description of the location of the development, with particular regard to the environmental sensitivity of geographical areas likely to be affected;
- a description of the aspects of the environment likely to be significantly affected by the development;
- a description of any likely significant effects of the Proposed Development on the environment resulting from expected residues and emissions and use of natural resources, in particular soil, land, water and biodiversity; and
- such other information or representations as the person making the request may wish to provide or make.

This letter and enclosures provide the following information:

- a description of the Site, its planning designations and the nature and purpose of the Proposed Development;
- an assessment of the possible environmental effects of the Proposed Development and consideration of these within the context of the guidance on EIA;
- a Site Location Plan with the boundary of the Site coloured red;
- a MAGIC map, Flood Risk Map for Planning and an extract from the Local Plan Proposals Map, showing designations/allocations in the area; and
- images and technical data relating to the proposed solar farm and associated infrastructure.

The remainder of this letter considers the Proposed Development within the context of the guidance provided on the potential need for EIA. It follows that the Applicant accepts that the Proposed Development is likely to result in some potential environmental effects however these are anticipated to be of a limited nature. This letter seeks to demonstrate in further detail that the Proposed

Development (with reference to its size, nature and location) will not require an EIA and the preparation of an Environmental Statement ('ES').

SITE LOCATION AND DESCRIPTION

The Site is located entirely within the administrative area of Rochford District Council and is delineated in red on the submitted Site Location Plan. It is situated south of the River Crouch, north east of the village of Ashingdon and north west of the village of Canewdon.

The Site comprises a number of agricultural fields predominately in arable use. The Site is split between two parcels, between which lies an existing operational solar farm. The western parcel measures approximately 27.4 ha. The eastern parcel measures approximately 130.3 ha and covers an area from Lark Hill Road to the south to the River Crouch to the north. A high voltage power line crosses the Site mounted on pylons.

The majority of the Site is relatively isolated. The Site is contained on most sides by sporadic hedging. The closest residential properties are located at Pudsey Hall Lane to the south east of the eastern parcel and to the south at Canewdon Road / Lark Hill Road. The immediate surrounding area largely comprises similar agricultural fields (aside from the villages of Ashingdon and Canewdon), scattered farmsteads and the existing solar farm to the south of the Site.

According to the nationally available Agricultural Land Classification ('ALC'), the Site comprises Grade 3 (good to moderate quality) and 4 (poor quality) agricultural land.

With regards to Public Rights of Way ('PRoW'), the Site is crossed by two footpaths through the middle of the eastern parcel and another footpath runs along the northern boundary of the eastern parcel.

PLANNING AND ENVIRONMENTAL DESIGNATIONS

The Site is located in the Metropolitan Green Belt and the Coastal Protection Zone as identified on the Rochford District Council Policies Map. An extract from the Policies Map accompanies this submission.

The Government's MAGIC mapping service identifies that the Site itself is not covered by any national or international designations or assets that relate to biodiversity, landscape, cultural heritage or other, e.g. Special Protection Areas, Scheduled Monuments or Areas of Outstanding Natural Beauty. There are no statutory heritage assets located within the Site. A MAGIC map extract accompanies this submission.

The Site is directly adjacent to a number of environmental designations to its north. These are known as the Crouch & Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar Site, Special Protection Area and Site of Special Scientific Interest and the Essex Estuaries Special Area of Conservation. There is an area of Ancient Woodland, which is also a Local Wildlife Site, approximately 330 metres ('m') to the south.

With regards to heritage assets, the closest Grade II and II * Listed Buildings are located in the village of Ashingdon, which is approximately 800 m south east of the Site, followed by buildings within Canewdon, Leon Cottage on Lark Hill Road, and an asset within South Fambridge.

The majority of the Site is within Flood Zone 3 but within an area that benefits from flood defences. There are three areas of land within the eastern parcel that are within Flood Zone 1. Please refer to the extract from the Environment Agency Flood map for planning that accompanies this submission.

THE PROPOSED DEVELOPMENT

The Proposed Development responds to the identified need by providing a renewable energy supply that would reduce carbon emissions and assist in establishing a greater diversity of energy sources in the UK.

The Proposed Development would include the following equipment (approximate):

- rows of solar photovoltaic ('PV') panels;
- inverters within shipping containers (or similar);
- 33kV/132kV substation compound;
- one substation and one customer switchroom;
- internal access tracks;
- perimeter fence; and
- CCTV cameras.

The Proposed Development would connect to the local electricity distribution network within the Site without the need for overhead lines.

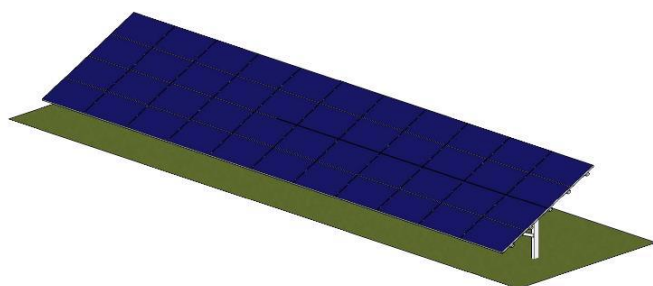
Solar PV Panels

The solar panels would be laid out in rows running from east to west across the Site. There would be a gap of approximately 3-4 m between each row. The panels would be mounted on a frame, to be installed using spiked foundations of approximately 1-2 m deep.

The panels are typically mounted in four horizontal rows, with one row fixed directly above the other, and angled at the optimum position for absorbing year-round solar irradiation. At the lowest edge the arrays would be approximately 0.9 m from the ground and up to approximately 3.0m at the highest edge.

An example of a row of arrays is shown in Figure 1 below.

Figure 1 – Example row of panels



Inverter containers

The inverters would be within containerised units similar to shipping containers. Each unit would measure approximately 6 m long, 2.7 m wide and 3 m high. Each unit would be placed on a concrete base and would be similar in appearance to the image in Figure 2 (below).

The inverters would convert the direct current ('DC') generated by the solar panels into alternating current ('AC'). Transformers, contained within the inverter cabins, convert the low voltage output from the inverters to high voltage suitable for feeding into the local electricity distribution network.

Figure 2 – Example Cabin



Substations

The connection into the local electricity distribution network would require a transformer substation compound to allow for the voltage step-up from 33 kV to 132 kV connection via a nearby pylon point of connection which is within the western part of the Site.

The substation compound would measure approximately 50m by 50m (an example of which is shown in Figure 3 below). This would become partly adopted by the DNO for their assets. This would consist of overhead electrical busbars and other electrical infrastructure along with a DNO control building and a customer switch room (examples of which is shown in Figure 4 below) housing the metering equipment). These structures would measure up to approximately 12.5 m long, 5.5 m wide and 6 m high. From the substation compound, a cable would be installed to a DNO substation and then on to a customer switchroom on-site. Each would be placed on a concrete base.

The solar panels would feed DC electricity into the inverters. This would be converted to AC electricity to be transferred through the switchrooms, through the meters, to the substation compound before stepping up the voltage to feed into the grid via the closest 132kV pylon. The substations, inverters and solar panels would be connected by underground electrical cables.

Figure 3 – Example 33kV – 132kV substation compound



Figure 4 – meter room and customer switchroom



Access

It is currently envisaged that the Site could be accessed from Canewdon Road to the south from an existing field entrance however this is subject to change and further design development.

Site access tracks would be utilised to facilitate movement within the Site for construction and maintenance. It is envisaged that topsoil layers would be excavated to expose a suitable base on which to build the track. The track would then be built up by laying crushed stone, rolled in layers. It is envisaged that the tracks would utilise existing access points between field and crossing points over ditches.

Security

The Proposed Development would need to be secure. It is envisaged that deer fencing (mesh with wooden posts or similar) to a height of approximately 2 m would be installed along the outer edges of the Site in order to restrict access.

This would be sited inside the outermost hedges/trees/vegetation, ensuring that the fence is visually obscured, and access is available for hedge trimming and maintenance. Gates would be installed at the access point for maintenance access. These would be the same design, material and colour as the fencing.

The perimeter of the Site would be protected by a system of CCTV cameras and/or infra-red cameras, which would provide full 24-hour surveillance around the entire perimeter. An intelligent sensor management system would manage the cameras. The cameras would be on poles of up to approximately 5 m high, spaced at approximately 50 m intervals along the security fence. There would be no lighting within the Site at night-time. Typically, with the higher cameras (5m) less would be required and at far greater spacings than 50m. They may be 2.5m tall but that would likely result in more (say every 50m). This is determined by the site owner and insurer's during the final construction design phase.

The proposed fencing and cameras are shown in Figure 5 and Figure 6.

Figure 5 – Example camera



Figure 6 – Example fence



Landscaping and biodiversity

The Proposed Development would be designed to respect the character of the landscape and use the strong field boundaries to integrate the scheme into the landscape as far as practicable. Existing landscape features would be protected and strengthened. It follows that all trees and hedgerows on/around the Site would be retained and additional planting provided, where necessary, to fill gaps in the existing boundary planting.

Key landscaping proposals include:

- establishing flora margins/buffer strips along field boundaries, between the boundary hedge/vegetation and the proposed fence;
- elsewhere sowing areas with a species-rich wildflower grassland mix, including beneath and in between rows of solar panels;
- retaining all existing woodland, trees and hedgerows (and field margins generally) within and adjacent to the Site, to retain the sense of enclosure and avoid open long views;
- providing enough space for new/replacement hedgerows and vegetation to be planted, to integrate the Site into the surrounding landscape as far as practicable; and
- using native species only.

An example of screen planting provision ('before' and 'after') at a different site is provided in Figures 7 and 8 below.

Figure 7– Before planting provision (example)



Figure 8 – After planting provision (example)



Construction

The construction phase of the Proposed Developments is expected to last for approximately 20 weeks. During this period, initial site setup works would take place followed by construction of the internal access route(s), ground works, and the installation of the solar panels and other infrastructure.

Facilities would be provided on site for construction workers, including provision of a site office and welfare facilities (including toilets, changing and drying facilities, and a canteen). Fencing would be installed around the perimeter of the site, as discussed, and temporary parking would be provided for the construction workers.

During the construction period, it is proposed that construction working hours would be as follows:

08:00 – 18:00 Monday to Friday;

08:00 – 13:00 Saturday.

Operation

Once operational, occasional maintenance of the solar panels and other infrastructure would be required. The solar panels also would also need to be periodically cleaned, most likely using simply soap and water, to ensure the efficient running of the system.

It is expected that under normal circumstances no more than 2-3 cars/vans would visit the Site each week (generally spread to less than 1 a day).

The Site would be retained in agricultural use for the life of the Proposed Development. Most of the Site would be planted with a combination of grassland/meadow, which would enable grazing (sheep). This would include land between and underneath panels.

Decommissioning and restoration

At the end of the Proposed Developments' lifespan (i.e. circa 40 years), the solar panels and other infrastructure would be removed, and the Site restored. The small quantity of foundations, hard surfacing and heavy infrastructure means, in combination with retaining most of the Site as grassland, that the land would be easier to restore than other more intrusive development, e.g. large buildings requiring significant foundations.

The restoration process is intended to ensure that the land is restored to the same quality as it was previously, and it is envisaged this would be secured through a suitable condition attached to any planning permission.

ASSESSMENT OF POTENTIAL ENVIRONMENTAL IMPACTS

Schedule 3 of the EIA Regs identifies criteria that should be considered in screening Schedule 2 developments in terms of the need for EIA. These encompass the characteristics of the Proposed Development, including the cumulation with other development; the location of the development; the environmental sensitivity of the area; and the characteristics of the potential impact. The Secretary of State's view is that, in general, EIA is only needed for Schedule 2 development in three main types of case:

- for major developments that are of more than local importance;
- for developments that are proposed within a particularly environmentally sensitive or vulnerable location; and
- for developments with unusually complex and potentially hazardous environmental effects.

Paragraph 018 Reference ID 4-018-20170728 of the Government's Planning Practice Guidance provides guidance in relation to the need for EIA for Schedule 2 development that:

"Only a very small proportion of Schedule 2 development will require an assessment. While it is not possible to formulate criteria or thresholds which will provide a universal test of whether or not an assessment is required, it is possible to offer a broad indication of the type or scale of development which is likely to require an assessment...To aid local planning authorities to determine whether a project is likely to have significant environmental effects, a set of indicative thresholds and criteria have been produced."

The guidance further states:

"...it should not be presumed that developments above the indicative thresholds should always be subject to assessment, or those falling below these thresholds could never give rise to significant effects, especially where the development is in an environmentally sensitive location. Each development will need to be considered on its merits."

An assessment as to whether the Proposed Development requires EIA is set out below:

- **Environmentally sensitive areas** – the Site does not lie within any environmentally sensitive areas; for example, national or international designations, nor are there any landscape designations in the immediate area. The Crouch & Roach Estuaries (Mid-Essex Coast Phase 3) Ramsar Site, Special Protection Area and Site of Special Scientific Interest and the Essex Estuaries Special Area of Conservation are located to the north however the Proposed Development would not impact the interest features of these designations (consistent with the EIA Screening Opinion in connection with the existing solar farm adjacent to the Site). The environmental sensitivity of the location is an important factor in determining whether EIA is required. In this case, the Site is within a location that is considered to be of relatively low environmental sensitivity and certainly not the type of location where the EIA Regs indicate that there would be the need for an EIA.
- **Land use and agricultural land quality** – the Site comprises land that ranges from Grade 3 (good to moderate quality) to Grade 4 (poor quality) agricultural land according to national mapping available on the Government's MAGIC map website. The Applicant acknowledges that agricultural land is a valuable resource. Sheep grazing and grass collection for feed often form part of the land management of the Site, allowing a form of agricultural use to continue

and most of the Site would be planted with a combination of grassland/meadow, including land between and underneath panels. This scenario would allow agriculture and renewable energy generation to be facilitated simultaneously. At the end of the Proposed Development's lifespan, the panels and other infrastructure would be removed, and the land restored to its original condition. It follows that there would be no permanent loss of agricultural land as a result of the Proposed Development. The Site is within the Green Belt however the Proposed Development would provide a large scale source of clean renewable energy outweighing any visual impacts. Any planning application would provide a full Green Belt policy assessment and, if necessary, a Very Special Circumstances case.

- **Biodiversity** - the Site is not designated for its biodiversity value; rather, the Site predominantly comprises of intensively farmed agricultural land. It is proposed that the planting along the Site boundaries would be reinforced with native hedgerow species and trees. In addition appropriate standoffs would be maintained from any natural features within/outside the Site. For the avoidance of doubt, there are no proposals to remove trees or hedgerows. The Proposed Development would account for appropriate separation distances in compliance with prevailing guidance and would also seek to achieve biodiversity net gain. Any planning application would be supported by a Phase 1 Habitat Survey and species surveys (if any are required), along with a management and mitigation strategy (as necessary).
- **Landscape and visual impact** – the Site is not subject to any nationally or international important landscape designations. The Proposed Development would be designed to respect the character of the landscape and use the strong field pattern to integrate the scheme as far as practicable. All trees and hedgerows on the Site would be retained and additional planting provided, where necessary, to fill gaps in the existing boundary planting.

In terms of landscape and visual impact, at this stage it is considered that landscape and visual impacts can be adequately managed, including consideration of the Coastal Protection Belt and purposes of the Green Belt. This is particularly (i) as a result of the existing mature screening that exists around the Site and (ii) when considering that a comprehensive landscaping scheme would be provided to assimilate the Proposed Development into the landscape. The latter would include the provision of new hedgerows where there are none and the gapping up of existing. The Proposed Development would also be designed to respect the character of the landscape and use the strong field pattern to integrate the scheme as far as practicable. Any planning application would also include a full Landscape and Visual Impact Assessment.

- **Cultural heritage** – the Site is not identified as having any archaeological significance and does not contain any Listed Buildings, Scheduled Monuments or other designations/assets. The closest consist of Grade II and II* Listed Buildings in the village of Ashingdon, which is approximately 800 metres south west of the Site, followed by buildings within Canewdon, Leon Cottage on Lark Hill Road, and an asset within South Fambridge. The planning application will be accompanied the Historic Environment Desk-Based Assessment, including consideration of both built heritage and archaeology.
- **Noise** - the Proposed Development would be passive in operation and therefore would not generate any significant operational noise, other than from the inverters. However, their siting, away from the site boundaries reduces the noise levels to ambient levels at the perimeter. Otherwise the only noise would be that associated with occasional visits by maintenance/service vehicles. The noise associated with such activities would be negligible

and less than that associated with farming activities in the area. There would be some temporary noise during the construction phase, which is anticipated to last approximately 20 weeks. This would include the following activities: vehicle movements along access tracks and haulage routes associated with the delivery and removal of construction materials; equipment delivery; site and ground preparation activities; erection of panels using construction machinery; and material hauling. The construction activities may increase noise levels within the vicinity of the Site; however, it is considered that noise impacts during construction would be intermittent, localised and temporary in nature.

- **Air emissions** - the development would not result in any emissions to air during its operation other than those from vehicles associated with periodic maintenance/inspection visits to the Site. Emissions associated with the construction phase would relate to construction vehicles and it is considered would not be of a level to cause harm to the environment or residential amenity and would be somewhat offset by a reduction in emissions related to the current arable farming of the land. Furthermore, it is considered that emissions would be more than offset by the significant benefits of generating renewable energy at the Site.
- **Waste** - no waste would be generated during the operation of the Proposed Development. Due to the methods of installation, limited if any waste would be generated during the construction phase.
- **Flood risk/drainage** – the majority of the Site is located within Flood Zone 3 benefiting from flood defences however there are three areas of land within the eastern parcel that are within Flood Zone 1. The Site is protected up to the present day 1 in 1000 year return period tidal event by defences to the River Crouch. Infrastructure associated with solar farms is not easily defined by any of the available Vulnerability Classifications however it is recognised within the National Planning Policy Framework as ‘Essential Infrastructure’. Initial research indicates there are several solar farm planning applications that have been approved in Flood Zones 3 and which have been classified as essential infrastructure, for example the existing solar farm adjacent to the Site (planning permission ref. 14/00649/FUL).

As Essential Infrastructure, construction is permitted within Flood Zones 1 and 2, however an Exception Test is necessary for development within Flood Zones 3a and 3b. The Exception Test is applied when there are no reasonably available sites in Flood Zone 1 and in some cases Flood Zone 2 when the proposed development provides wider sustainability benefits to the community that outweigh flood risk, and that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall. The Proposed Development would provide a number of wider sustainability benefits to the community, which would be set out in detail in the planning application submission. In summary, these are:

- a contribution to the need for renewable energy to assist in combating climate change and reducing carbon emissions, and an associated tangible contribution to legally binding targets to reduce carbon emissions and increase renewable energy consumption;
- combating climate change through renewable energy has the benefit of actually reducing flood risk;
- tangible contribution towards increasing domestic energy security and providing economic benefits arising from construction; and
- a comprehensive landscape scheme and biodiversity enhancements.

The planning application will be accompanied with a flood risk assessment and drainage strategy outlining how the Proposed Development would remain operational and safe for users in times of flood, result in no net loss of floodplain storage, and not impede water flows and not increase flood risk elsewhere.

- **Traffic** - traffic associated with the Proposed Development would be largely limited to the temporary construction phase, during which appropriate and proportionate management measures would be implemented. Traffic during operation would be limited to periodic maintenance/inspection. The planning application would however be accompanied by a Transport Statement.
- **Complex and potentially hazardous environmental effects** - the Proposed Development is not of a nature, being for the generation of renewable energy, that presents any complex or potentially hazardous environmental effects.
- **Cumulative effects** - a search of satellite imagery and the Council's planning register identified one existing solar farm located between the western and eastern parts of the Site. Furthermore, BSR Energy have submitted a planning application on 01 June 2021 (application ref. 21/00605/FUL) in respect of a solar PV proposal at land to the north of the eastern parcel of the Site (off Fambridge Road, due north of Ashington at South Fambridge Farm) and this planning application is currently under consideration. Technical reports submitted with any forthcoming planning application will be taken into account in the planning application in addition to any other relevant major developments within 3km of the Site, however it is considered that the Proposed Development would not result in any significant cumulative effects, such that EIA is required.

In view of the characteristics of the Proposed Development, the relatively low environmental sensitivity of the location and the limited potential for impacts, it is considered that the proposed solar farm would not result in significant environmental effects that require an EIA to be undertaken.

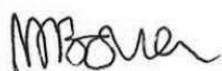
SUMMARY AND CONCLUSIONS

The Proposed Development involves the generation of renewable energy. It would make a positive contribution towards reducing carbon emissions and also contribute to supporting the local community and economy.

The Site is not highly environmentally sensitive. It would not involve complex or potentially hazardous environmental effects. The development does not therefore, in our view, represent EIA development.

We look forward to hearing from you soon.

Yours faithfully,



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Encs:

Site Location Plan

Magic Map Extract

Proposals Map Extract

Environment Agency Flood Risk Map