

In accordance with The Construction (Design and Management) Regulations 2007

CONSTRUCTION PHASE PLAN

ROOKERY FARM SOLAR PARK

Greenswitch acknowledges their responsibilities as Principal Contractor under the Construction (Design and Management) Regulations 2007 and approved code of practice. This Plan is designed to outline the arrangements for managing health and safety on site during the construction phase. All amendments must be logged by the Site Manager after discussion with the CDM-c in the Amendment Log.

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AMENDMENT LOG

Amendment No	Date of Amendment	Amendment Details	Name	Signature
1				
2				
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EMERGENCY INFORMATION OVERVIEW

An emergency occurs when an injury or life threatening incident occurs.

The Site Manager and a first aider must be alerted immediately.

The site Emergency Management Plan must be followed (see Annex 1)

All incidents and injuries (including near misses) must be reported to the Site Manager immediately (see Reportable Incidents Page 12).

EMERGENCY SERVICES – 999 - Advise Emergency Services that site is signed from entrance to:

If the emergency services are called the Site Manager will have someone meet them at the entrance from the main road and direct them.

Rookery Farm ,Worms lane ,Flansham Bognor Regis

Site Office Grid Ref:

Latitude:

Longitude:

50.48.33

38.26.16

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Other numbers:

Police (Non-Emergency) [REDACTED]

Environment Agency [REDACTED]

Electricity SSE [REDACTED]

Nearest Accident and Emergency: 8 miles

Bognor Regis War Memorial Hospital. Shripney Road Bognor Regis
PO22 9PP (Non-emergency and minor injuries medical services - see
WELFARE Page 14)

SITE CONTACT DETAILS

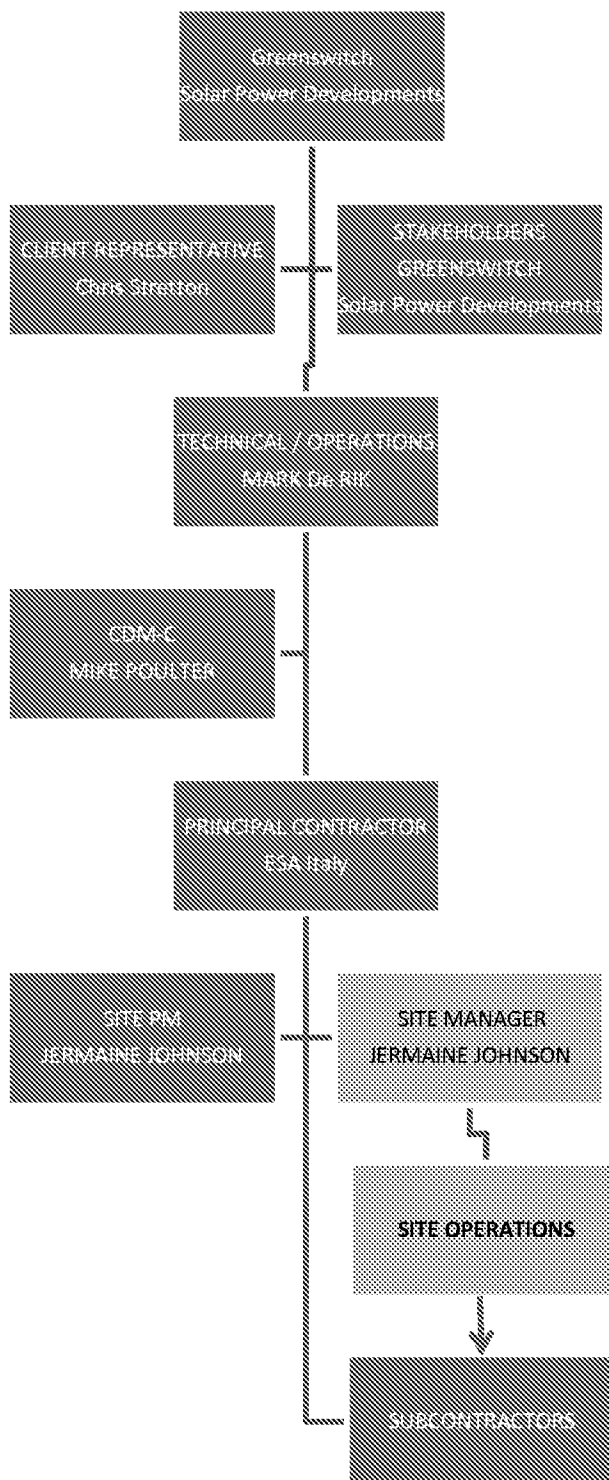
ROLE	ADDRESS	CONTACT PERSON(S)
SITE ADDRESS	Rookery Farm Worns lane Flansham Bognor Regis	Rupert Langham (All contact via Site Manager)
CLIENT	Solar Power Developments	Tony Simmons

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CLIENT SITE AGENT	Greenswitch	Jay Mitra
CDM-c	The Quoin Consultancy	Michael Poulter
PRINCIPAL CONTRACTOR	Greenswitch	Jermain Johnson
DESIGNER	Greenswitch	ESA Italy
SITE MANAGER	Greenswitch	Jermain Johnson
SUB CONTRACTOR Point of Connection	SSE	Paul Dougal
SUB CONTRACTOR Point of Connection Civils	SSE	Paul Dougal
SUB CONTRACTOR Site preparation Civils	Doughty Construction	Simon Doughty
SUB CONTRACTOR On Site Civils	Doughty Construction	Simon Doughty
SUB CONTRACTOR Civils	Doughty Construction	Simon Doughty
SUBCONTRACTOR Piling	ESA Italy	TBC
SUBCONTRACTOR On Site Cabling	ESA Italy	TBC
SUBCONTRACTOR		
SUB CONTRACTOR UXO	N/A	

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SITE MANAGEMENT AND ORGANISATION CHART



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SITE MANAGEMENT ON SITE DECISION MAKING ROLES

CLIENT TECHNICAL / OPERATIONS JERMAIN JOHNSON

Has direct responsibility for ensuring that the technical and operational aspects of this plan is implemented and carried out to the client's specifications.

PRINCIPAL CONTRACTOR PROJECT MANAGER TBC

Has direct responsibility for ensuring that this plan is implemented and carried out operationally. Suitable arrangements and resources in the form of finance and time will be made available to ensure, so far as is reasonably practicable, the health and safety of all employees and others who may be affected by the Principal Contractor's operations. Will provide audit and monitoring of contractors engaged in project; will provide assistance and advice to Site Manager on health and safety matters and will report accidents under RIDDOR to the Health and Safety Executive.

SITE MANAGER – JERMAINE JOHNSON -

Is in overall control of the site on a day to day basis and will report to the Project Manager on all health and safety issues arising on site. He will ensure all sub-contractors receive a specific site induction and ensure they comply with all our site procedures. He will check their method statement and risk assessment also ensuring they understand what is required of them before commencing work on site, ensuring all contractors have received required training for the tasks they undertake. The Site Manager is responsible for ensuring that procedures contained within the construction phase plan are carried out and followed and will oversee contractors and ensure that work is carried out in accordance with this plan and any procedures or relevant regulations. The Site Manager is responsible for ensuring that emergency procedures are detailed and observed.

Project Description

- ROOKERY FARM Solar Park is being built by a multinational team led by Greenswitch Solar after initial development throughout 2013/14.
- The construction aims are to safely deliver an operational solar park which compliments and ultimately enhances the natural environment it sits in.
- Pre-preparation work commenced on site on 9th November 2014.
- It is the client's aim that the park will be operational before 31st March 2015.

Site Description

The site is in open farmland in the West Sussex Countryside. The site fields are flat farm land at low risk of flooding however the fields have become very wet after the severe weather in December 2013/ January 2014 and are expected to stay wet throughout the project. The water table was at approx. 1m in January 2014. Site Plan and No Go Areas included at Annex 3.

CONSTRUCTION METHODOLOGY

For installation of a photovoltaic solar array and associated services:

- The land is free and clear of surface obstructions and at low risk of underground obstructions.
- Operations are subject to precautionary underground clearance by specialist UXO engineers of pile ramming and all excavation areas to 2m depth within site boundary.
- A desk top study has been carried out which provides information of the location of existing underground services and other contamination. This information will be held on site by the Site Manager.
- Any services identified will be located and marked on site by use of a CAT scan. NONE are known save a drain pipe along the southern boundary of Field A where no further work is expected.

Methodology

- The Installation will consist of building a road access to the site with set down areas, laying out the location for the pile driven framing to support the overhead installation of the modulised PV panels and then installing framing, then the panels.
- Inverter, transformer and substation units will be delivered to and sited on pre-prepared foundations on site.

- Once the framing and panels are installed there will be a moderate amount of trenching performed to run Low Voltage cables across the site to the inverter and transformer sites. These trenches will be 300mm x 600mm deep and will be opened and closed same day in most cases.
- A ring fence consisting of a vehicle gate and welded wire fence will be installed to encapsulate the complete array area and as a perimeter boundary for construction activity. This will have a monitored security system installed upon completion
- The final connection from the fence line substation to the DNO grid connection will be performed by SSE.
- Duration will be 14 weeks starting November 2014 after site preparation works, all works are subject to the control of the Principal Contractor's Site Manager Jermaine Johnson.
- The detailed programme of works is under constant management review and details are issued to subcontractor managers by Greenswitch.

DESIGN MANGEMENT

The procedure is that design changes that are proposed or planned must be notified to the Greenswitch planning team by email in advance.

This group is Tony Simmons, Mike Poulter (CDM-c) and Wardell Armstrong (landscape and archeological consultants who will consider technical aspects of drawings and landscape/ ecology/archaeology constraints and opportunities). All plans sent to the group must be DWG files.

The design changes group will consider the changes and advise on whether they are acceptable to the client and on necessary action with the local planning authority.

This procedure will be deployed on site with the addition that changes arising from or required for the safe working/ good practice of principal contractor/ subcontractors on site must be discussed immediately with the appointed Greenswitch Site Manager/ project manager on site at the time.

The Greenswitch Site Manager/ project manager will then discuss these changes with Tony Simmons in order to present solutions for approval to the Rookery Design Changes Group. This is to allow flexibility to promptly change plans in the interests of safety and good practice.

Where a substantial change in design (which could not or had not been envisaged) is identified on site, the following sequence must be carried out;

1. Designer to examine the changes for health & safety implications.
2. Identify hazards, assess the risks involved and give considerations to avoid, minimise or control those risks in accordance with the appropriate regulations and Approved Codes of Practice.
3. Submit proposals to the CDM Co-ordinator to ensure compliance with Regulations.

The reason for having this procedure is in the interests of proper construction and design management, in order to prevent delay and avoid the need, time and cost of changing non permitted design changes after construction.

HEALTH AND SAFETY OBJECTIVES, STANDARDS AND ARRANGEMENTS

The Health and Safety objectives of this Plan are

- to carry out the work on time to the specified quality standards without placing those carrying out the work, and others who may be affected, directly or indirectly, by the work, to significant health and safety risks.
- to complete the works with no lost time or reportable injuries, diseases or dangerous occurrences.

Health and Safety Standards

All work on this site will comply with the requirements of English Law specifically the Health and Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1999 and all other relevant statutory provisions, guidance and best practice. In addition, the Client has also established local Safety Rules for Contractors. In the event that these cause conflict with any provision laid down elsewhere, the matter is to be brought to the attention of the Principal Contractor and the CDM-Coordinator before continuing.

Selection and control of subcontractors

Sub-contractors are selected by Greenswitch based on the knowledge of their competence and reliability over many years of using their services. Managers of subcontractors must ensure competence of personnel and that they have made adequate provision for health and safety. Where sub-contractors are used they will be required to provide a copy of their risk assessment and method statement for the particular work elements that they are to be undertaking on site.

Exchange of health and safety information/ Health and Safety File

Relevant and appropriate information for the successful health and safety management of the project will be brought to the attention of all operatives working on site, including any sub-contractors and self-employed persons, prior to the commencement of any works by the Site Manager and in the weekly site meeting. At daily briefing, project co-ordination and progress meetings safety issues will be a standard agenda item. A weekly meeting will review the activity for the forthcoming period with particular regard for any activities that Engender significant risk and the Site Manager will issue a briefing at the end of each working week about activity in that week and planned activity in the next week. Risk Assessments and any associated method statements will be scrutinised by the Principal Contractor for their adequacy, prior to allowing any such operations to proceed. Any accidents or health and safety initiatives, raised by contractors, will also be reviewed at such meetings, as will the result of any design activity carried out or modified during the Construction Phase.

Relevant and appropriate information will be provided to the CDM Co-ordinator on completion of the project for inclusion within the Health and Safety File. The level of detail will be proportionate to the risks likely to be involved to those working on the completed structure, or who may be affected by such works.

Arrangements for liaison between parties and consultation with the workforce

Communication and co-ordination of activities on site is of paramount importance, especially on a site with workers of different nationalities. The aim is to ensure the successful implementation of the works and the continuing health and safety of all involved or affected by the works. Liaison between contractors and others will be via the Site Manager who will be on site at all times, if required any health and safety matters will be escalated to the Greenswitch Project Manager for further review and actions.

The Site Manager will:

- Be available for consultation at the Client, Client Agent or CDM Co-ordinator's request.
- Provide details of planned work activities and organisation of the site.
- Provide information on safety measures taken for any activity as required.
- Exchange of design information & handling design changes
- Where a substantial change in design (which could not or had not been envisaged) is identified on site, the following sequence must be carried out;
 1. Designer to examine the changes for health & safety implications.

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2. Identify hazards, assess the risks involved and give considerations to avoid, minimise or control those risks in accordance with the appropriate regulations and Approved Codes of Practice.

3. Submit proposals to the CDM Co-ordinator to ensure compliance with Regulations.

- Day to day instructions will be raised through the Greenswitch Project Manager who will instruct the Site Manager/Supervisor accordingly.
- Any instructions/design changes will be assessed on the basis of health & safety.
- Where design changes have an effect upon health and safety then working methods will be reviewed and where necessary amended. Any amendments will be brought to the attention of all operatives on site. This Plan, as well as any relevant method statements and risk assessments, will also be amended to reflect any such changes in procedure.

REPORTABLE INCIDENTS

- Accidents and near misses
- Environmental Contamination
- All incidents with a high likelihood of creating a reputational incident for the site

There are four stages of reporting:

1. Such incidents must be reported to the Site Manager on [REDACTED]
2. The Site Manager will report the occurrence of such incidents to the Project Manager by telephone as soon as possible during the management of the immediate situation.
3. The Project Manager will inform the Client, Client Agent and CDM-c that an incident is being managed.
4. As soon as possible after the immediate situation has been managed and only when it is safe to do so, the Site Manager will report the facts of the incident. The facts are: what has happened, when it happened, where it happened, who responded and how. Report will be by email to the Project Manager, Client, Operations and Technical Director, Client Agent and CDM-c in order that subsequent response may be considered and if necessary further action taken.

Subsequent statutory reporting is the responsibility of the Greenswitch Project Manager.

SITE ACCESS, SITE PLAN AND SITE SECURITY

Site Access

Site Access is as detailed on the site access plan displayed in the site office and explained to workers and visitors at induction.

All visitors to the site and deliveries are to be issued with the site driver's card in advance of their visit and all those driving to the site must comply with those instructions.

All vehicles must be parked in designated areas, either long stay worker parking or at delivery points as directed by the Site Manager.

Working hours: are set out in the site induction.

Site plan

A plan of the site location together with authorised access routes, storage and lay-down areas is displayed in the site office. This also shows lines for the site perimeter and arrangements for the segregation of pedestrian and traffic routes where appropriate.

Site Security

The site is very rural, and as part of the initial phases of the work the security fence will be erected around the proposed site area.

This will then form the site boundary fencing during construction activities.

Site safety signage will be erected around the fencing.

A priority is to keep pedestrians as segregated as possible from vehicle traffic at all times on site. The site approach roads and surrounding area are signed for the protection of vulnerable road users.

A full time on site 24 hour a day site security presence will be engaged. They will use two on site locations as a base to patrol from and use 2 way VHF radios for communications.

All operatives on site will need to sign in and out daily. No unauthorised persons are permitted on site and visitors will be accompanied at all times by a person designated by the Site Manager.

WELFARE

Accommodation

Site accommodation/welfare facilities are provided in accordance with the requirements of Schedule 2 of the CDM Regulations 2007.

Portable welfare cabins are positioned on site to provide a small area for the operatives to get out of the weather and eat/drink. The cabins also provide an integral toilet, hot and cold water and drying room facilities

Warming /break huts and a site office are positioned on site.

There are no existing services therefore the site welfare cabins will be supplied by water and sewage tanks that will be maintained and emptied by the hire company.

Health Care

Local medical information is provided for non-emergency requirements, details displayed in site accommodation.

Minor Injuries Unit –War memorial Hospital at Shripney 08.30-16.30 Monday to Friday
Last consultation Mon – Fri and 15:30

Closed for 30 mins for lunch. T: [REDACTED]

Out of Hours Treatment Centre - If you become unwell and need medical help after your GP surgery has closed there is a Local Treatment Centre at War memorial Hospital at Shripney 08.30-16.30 Monday to Friday Last consultation Mon – Fri and 15:30

Telephone [REDACTED] for an appointment or advice.

Site Induction

Site induction will be carried out on the first day on site and a copy of the site rules will be read through and displayed on site within site accommodation.

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CONTROL OF HAZARDOUS ACTIVITIES

Risk Assessments and Method Statements

Generic risk assessments for normal work activities undertaken by Greenswitch are provided on site with this Plan, if the existing site environment requires additional specific requirements these will be amended by the Site Manager prior to commencing the work to which they relate to.

For work normally outside Greenswitch day to day activities a site specific risk assessment will be prepared in association with the external health and safety consultant.

Any subcontractors employed on the project will be required to provide copies of their risk assessments prior to commencing on site.

Contractors Risk Assessments for all hazardous activities identified on the Project are given at Annex A. These will be reviewed by the Principal Contractor Coordinator for adequacy, prior to acceptance.

Method Statements: Contractors Method Statements and written systems of work are given at Annex A. These will be reviewed by the Principal Contractor Coordinator for adequacy, prior to acceptance.

COSHH Assessments: COSHH assessments for products used in the construction or for incorporation in the works are given at Annex G.

Permits to Work: The activities listed below are of a particularly hazardous nature and require a Permit to Work, prior to commencing. The Permit will lay down particular precautions to be adopted whilst working.

The following activities require a Permit:

- ◆ High Voltage Works
- ALL LIFTING EQUIPMENT IS FITTED WITH A PHYSICAL RESTRICTOR TO THE RAM TO STOP ANY HEIGHT ABOVE 2.9 MTRS
- ◆ EOD Works
- ◆ Crane Operations

Unexploded ordnance and environmental risk assessments have been prepared for this site with specific mitigation measures put in place. These measures are the subject of induction briefings.

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Control of Hazardous Activities (contd)

Control Measures - Information and Training for People on Site

Site Induction: Site induction will be provided to all who work on site. This will include information on the general site hazards, risk assessments, and associated control measures. The content and attendance at this meeting will be recorded. (Site Manager).

UXO Induction: A site specific UXO induction will be provided to all who work on site (EOD Engineer).

Safety Plan Induction: Contractors are responsible for inducting their own staff and providing information on the content of the Safety Plan, as it affects their own employees. As a minimum this will cover information on the Site Hazards, as identified in this plan, the Emergency Procedures, the findings of relevant Risk Assessments, the method statements and COSHH assessments and the Site Rules. No work is to proceed until such induction has been carried out. Contractor managers/ supervisors will confirm to the Site Manager that this induction training has been carried out (Contractor Manager/ Supervisors).

Toolbox Talks and Further Training: Contractors are to provide appropriate toolbox talks or similar further training to their employees throughout the duration of the works (Contractor Manager/ Supervisors).

Evidence of Competence: Evidence of competence, in the form of a recognized trade qualification will be sought for certain safety critical trades. The particular trades where this is required, together with an appropriate trade qualification will be notified by the Site Manager and evidence of sight of such qualifications will be recorded (Site Manager).

Consultation: All people on site are reminded that it is their duty to bring to their Line Manager's attention any failings, or potential failings, in procedures or equipment that might adversely affect the health and safety of themselves or other people. All such items are to be brought to the attention of the Site Manager at the first available opportunity. If deemed necessary work is to be suspended before such consultation.

Site Rules: The various rules governing behaviour on this site.

Fire and Emergency

The works are to be carried out externally and as such the risk of fire to fixed buildings is not applicable,

Greenswitch acknowledges the risk of fire in temporary accommodation, vehicles and storage areas and will ensure that necessary prevention and mitigation measures are in place.

The site will be kept clean and free from obstructions on traffic routes and around work areas so that, in the event of a fire, operatives can remove themselves safely from the hazard.

In the case of a fire being observed the operative is to shout “fire, fire” to make others in the vicinity aware of the risk, extinguishers will be available on site for use by those trained to use them.

The site Fire Warden together with the procedures to follow in the event of fire are detailed at induction and displayed on site. An emergency contact list for relevant local services will be compiled and displayed in the site office together with a map showing the route from site to the nearest accident and emergency department.

Greenswitch will ensure that a site-specific fire plan is developed from the site fire risk assessment. The plan will be developed on an on-going basis throughout the duration of the project with any changes addressed. The plan will be displayed on site at designated fire points at all times.

The plan must be revised as the site layout changes i.e. project phases and must clearly identify emergency egress routes and fire points on site. These changes must be disseminated to site personnel by way of a tool box talk as soon as practicable. A record of the toolbox talk and those present must be kept.

During the induction process all personnel will be informed of the specific procedures to be undertaken in the event of an emergency situation arising. Such procedures will include

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Control of Hazardous Activities (contd)

Fire (contd)

evacuation routes and emergency exit points, siting of emergency portable firefighting equipment and the position of the assembly point used to take a roll call.

All temporary escape routes will be kept clear of obstructions at all times and provided with suitable and sufficient lighting and signage at intervals on long runs and changes of direction to provide good visibility and with secure fixings.

Adequate fire points are to be provided by the principal contractor at agreed locations on the site, the number of fire points required is to be determined by the Site Manager. A fire point will consist of a minimum of two fire extinguishers which must be checked at regular intervals. The type(s) of fire extinguisher must be appropriate to the type(s) of fire risk.

Fire plans will be displayed in the site office and on site. Drawings showing escape routes will be displayed in the building as required.

First Aid

Appropriate first aid kit equipment will be available on site retained within site accommodation.

An accident book will kept on site.

All accidents and incidents, including 'near misses' are to be recorded within the accident book

Any serious accidents or incidents are to be reported to the Site Manager who will notify Greenswitch Project Manager Jermaine Johnson, who will organise for an investigation to be carried out. Jermaine Johnson will report any notifiable accidents to the HSE as required by RIDDOR and the client.

The first aid equipment provided will be controlled and by the Site Manager.

In any case of emergency the Site Manager will implement the Emergency Management Plan.

ASSOCIATED RISKS

“Provisional figures for the year indicate one fatality associated with renewable energies (a fall from height associated with solar technology) and 20 major injuries. All incidents were associated ***with well-understood hazards not unique to renewable energy industries***. Solar continues to generate the highest numbers of health and safety incidents in the renewable energy sector, primarily associated with falls from height. HSE has investigated a number of serious accidents at both domestic and commercial premises, and has taken enforcement action as a result. (Source: HSE 13/96 Board Paper Ensuring the continued effectiveness of regulation of the renewable energy sector)

All personnel must be fully trained in their roles to work on this site and permits to work will not be issued to those who cannot demonstrate compliance.

The site is a place of continual learning – everyone is expected to:

- Plan their work.
- Check their plan is workable and safe.
- Do their work safely, following their plan.
- Review – and then act to change anything that did not work and share that learning with colleagues at site meetings.

The risks in the following pages are known to be associated with the works on this site and contractors risk assessments for site specific works should ensure that these risks are assessed.

Asbestos/ Fly tipping

Due to the type and location of the works being carried out asbestos should not be present. If asbestos is identified e.g. through a fly tipping incident relevant risk assessment will be carried out. Where possible non-hazardous fly tips at site will be managed as part of the site waste management arrangements, otherwise specialist contractors will be engaged.

Clash of Trades/ Language Barriers

Clash of trades is a common risk on solar parks so measures are required to reduce the risk of this and consider the impact of language and understanding given the potential use of sub-contractors from different nations.

Deliveries

All deliveries will be by prior arrangement with the Site Manager due to restricted site availability for storage. Access to the site for deliveries will be as directed.

Unloading of all deliveries shall only take place in the designated area or as directed by the Site Manager and be totally segregated from other site personnel to ensure that they are free from risk.

A banksman is to be used during all delivery operations. Banksman will primarily be used as lookouts to ensure that collision with persons does not occur during vehicle unloading and reversing operations. Their training will comprise familiarisation with the site traffic management plan and HSE publications INDG148 Reversing Vehicles and INDG 199 Managing Vehicle Safety in the Workplace.

Reversing of HGV's should be avoided and if not possible, supervised by a banksman.

A lifting plan will be prepared for the delivery area by the Site Manager.

Reference should be made to the driver's card when arranging for deliveries to site.

The unloading of vehicles is strictly prohibited on the road to the site.

Driving to Site

The approach to the site is on public roads and the Highway Code must be followed at all times - <https://www.gov.uk/highway-code>

Particular attention should be paid to turning into and out of the site approaches from the public road at the Ashley Heath Industrial Estate and all drivers should be aware that vulnerable road users – horse riders, pedestrians and cyclists use the areas around the site.

Electricity

Electricity services to site/site accommodation will be by a portable “silenced” generator with suitable arrangements put in place to deal with environmental noise and pollution. All supplies to accommodation units will be tested for electrical safety immediately following installation and thereafter at required frequency.

Electrical equipment: Portable electrical appliances, leads and plugs must be free from visible damage and be appropriately PAT tested.

Electrical leads will be placed so as to avoid being a trip hazard.

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Electrical equipment will be served by an RCD or operated from an 110v supply. Battery tools will be used wherever possible, in preference to electrically operated tools.

All operatives using electrically operated tools will be suitably trained and competent in their use.

The installation of the new LV cables, distribution and isolation panels, inverter stations, substation and HV operations will be undertaken by a specialist contractor competent to undertake this work with specific risk assessments and method statements prepared prior to work commencing.

Environmental Protection

Environmental protection measures are in place and any incidents of pollution must be reported to the Site Manager and appropriate action taken.

Eye Protection

Eye protection should be worn in respect of all relevant activities, e.g. ramming.

Ram operators should be careful not to transfer small metal splinters into their eyes via rubbing their eyes during and after working.

Excavations

Excavations for cable runs will be undertaken by use of JCB with bucket which will prevent site operatives coming in contact with soil and working within trenches, foundations for the solar farm DNO and substation buildings will be dug using cut back of the excavation walls to avoid fall in. The sides of the excavations will be covered in polyethylene when required to avoid excessive drying or moisture penetration and this instability. Most trenches and excavations will be filled in within the same day otherwise they will be fenced with adequate environmental protection measures in place. The site UXO guidance applies.

Where there is a risk of someone falling into or onto something, all excavations must be fitted with suitable edge protection.

Plant and equipment can also fall into an excavation, any plant or traffic should be routed away from the excavation.

Where there is a need for plant to dump material into the excavation, suitable stop blocks and a banksman need to be provided.

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If an employee needs to cross a trench, a properly constructed access should be provided, i.e. a walkway at least 600 mm wide, with guard rails and toe boards where necessary.

Any ladder used for access must be positioned at a 4 in 1 angle – so that there is a height to base ratio of 4 metres up to 1 metre out. Ladders must be secured at their highest point, with a protrusion of at least 1 metre above the point of landing in order to provide an adequate handhold.

Walking up the battered end of the trench is unsafe and must be strongly discouraged: this section of trench is often unsupported and there is a significant risk of collapse and injury.

Existing Services

All services identified within the proposed location of the solar farm will be located by CAT scan on site and the design of the panels will be arranged so that these do not affect them when putting in the foundations or trenching. Nevertheless vigilance is required in respect of excavation works.

While there are no overhead lines on site there are overhead lines on the approach to site. Safety goal posts are provided on traffic routes.

Handling Solar Panels

Care should be taken when handling panels and siting to avoid risk of injury from handling and lifting errors and falls.

Hazardous Substances

Where ever possible the use of hazardous substances will be avoided, e.g. through substitution with none or less hazardous substances. Where this cannot be achieved then every effort will be made to protect operatives from exposure to the particular substance, through consideration as to how the substance is applied, quantity of substance required, physical isolation from the process, provision of ventilation etc. PPE will only be relied upon where other control measures do not reduce the risk to a suitable level.

When purchasing materials through suppliers, hazard safety data sheets will be requested from and must be provided with the substance/material.

Lifting Operations

All lifting operations must be carried out in accordance with the Lifting Operations and Lifting Equipment Regulations 1998 with reference to HSE guidance document Safe use of

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lifting equipment. A site and operation specific risk assessment and method statement must be completed prior to any lifting operations being undertaken on site for example unloading of deliveries in delivery area and crane lifts.

ALL LIFTING EQUIPMENT IS FITTED WITH A PHYSICAL RESTRICTOR TO THE RAM TO STOP ANY HEIGHT ABOVE 2.9 MTRS

Manual handling

Wherever possible the manual handling of materials on site will be avoided by utilising mechanised handling and lifting aids etc (accepting that these will introduce their own hazards and risks).

Where manual handling cannot be avoided then procedures will be put in place to minimise any associated health problems as a result, including: carrying out of appropriate manual handling risk assessments, consideration of the task being carried out, breaking of loads into smaller/lighter loads, instruction and training in correct lifting techniques, ordering of materials in smaller units etc.

Where avoidance is not reasonably practicable, make an assessment of the lifting operation to reduce the risk of injury as far as reasonably practicable and provide information about the weight of loads.

When manual handling is necessary, prevent injury by:

- Identifying before work begins, operations which involve either lifting heavy or awkward loads or repetitive lifting operations.
- Where reasonably practicable, find ways for either avoiding the operation altogether, or using mechanical aids to minimise the amount of manual handling.
- Heavy or awkward loads that have to be lifted by hand should be carried out in teams.
- All contractors' personnel must have training in safe lifting techniques and sensible handling of loads.
- Formal recorded assessments will be made where required.

Noise

To control noise emissions the company shall wherever practicable:

- Eliminate the use of noisy equipment exceeding 85 dB (A).
- Choose the quietest model when buying or hiring equipment.

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- Move workers not involved out of a noisy area.
- Erect signs to keep people out of noisy areas.
- Try and quieten the noise at source e.g. fit mufflers to breakers, drills etc.
- Make sure the exhausts of compressors, generators and other plant are directed away from work areas.

Where it is not possible to eliminate or reduce the noise at source Contractors will provide employees with earplugs or defenders and information about the effects of excessive noise on their hearing.

Employees must take proper precautions to protect their hearing, and before working with noisy plant or in a noisy environment, study the items within this section.

On site vehicles

Only vehicle operators should travel in their vehicles and under no circumstances must any person 'hop on' the outside of a vehicle to travel around the site.

Open Water

There are ponds in the no go areas outside of the site boundaries.

Other people and animals

The site is mainly located within farmers' fields or other rural locations. It is near bridleways and areas used by the public generally and horse riders, dog walkers and cyclists.

Pedestrian and vehicular traffic movements are around site at all times throughout the day - these must be taken into account when deliveries are made.

Appropriate precautions must be taken on approaching and leaving the site and while on site to ensure that site workers, vehicles or operations do not come into conflict with others in the area. If in doubt – stop work and consult the Site Manager.

Personal Protective Equipment

As a minimum high visibility jackets, protective boots and hard hat must be worn at all times whilst on the site.

All workers are required to provide and use the PPE that is appropriate to their role.

Plant and lifting equipment

All non-hand held plant or equipment i.e. MEWP's, Hoists, Cranes, Fork Lift Trucks etc intended for use on site must carry a current test certificate, copies must be available i.e. - stored / displayed on the equipment or filed in the site office. Details of equipment directly responsible to Greenswitch must be entered on to the Plant and Equipment Register within the Site Safety File.

ALL LIFTING EQUIPMENT IS FITTED WITH A PHYSICAL RESTRICTOR TO THE RAM TO STOP ANY HEIGHT ABOVE 2.9 MTRS

Details of all contractor plant must be entered on the sub-contractor plant and equipment register within the Site Safety File.

Operators are required to produce training certification / confirmation of competence for all non-hand held plant and equipment to the Site Manager which must be copied and filed on site.

Routes on Site

All routes will be kept clear of obstructions at all times – note this is agricultural land and may be uneven and waterlogged.

Rubbish

No rubbish must be left on site. Please remove all items to designated waste areas on completion of work.

Signage

All signage (including temporary) throughout the site will include mandatory, safe, prohibition and warning. Signage must not be removed without prior permission of the Site Manager.

All such signage has been put in place to identify areas of concern and awareness to the Health & Safety issues identified and assists in the protection of everyone attending site and as such is to be obeyed in all areas.

Slips, Trips and Falls

Ensure access is level and not obstructed by materials. Make sure that all footpaths or other areas used by pedestrians are kept clear of obstructions at all times. Tie up loose cables. Make sure that steps into site cabins are properly constructed and that the work areas are kept as tidy as possible while the work's going on.

Storage of materials and Waste

Greenswitch will provide an area for storage of materials, skips for the segregation of waste materials will be located in a segregated area on site. Contractors are required to place all waste material in the correct skip to help us to comply with our waste management systems.

No material will be stored on the roof of any storage container or site accommodation.

Contractors will be responsible for the safe storage of all materials they bring to site.

Greenswitch will provide suitable and sufficient hoardings and safety signage in order to protect all staff and members of the public.

The storage of any possible flammable materials and ignition sources will be kept to a minimum in secure, separate, suitable and sufficient, locked external cages, to prevent any possible fire hazards

Vibration

Greenswitch will check which of its activities will involve equipment that produces vibration and obtain information from the manufacturer or supplier determine the vibration exposure to employees using the equipment. Wherever possible sub-contractors to choose low vibration tools and equipment. To control vibration emissions wherever practicable:

- Eliminate the use of vibratory tools, where possible.
- Introduce job rotation to limit exposure from vibration.
- Ensure equipment is properly balanced, has no loose or worn out parts and blades / cutters are sharp.

All employees, and sub-contractors are required to protect themselves against vibration, should keep their hands warm to get a good flow of blood into their fingers and wear P.P.E.

Working at Height

Due to the type of the works being carried out there will be limited work at height, however if any work at height is required then all work will be undertaken in accordance with the Work at Height Regulations

Stepladders will not be permitted on site unless prior permission has been granted by the Site Manager. Steps and ladders are not to be used on this project unless there is a suitable and sufficient quantified risk assessment developed by the Sub-Contractor demonstrating why steps and ladders are considered more suitable than other means of working at height, e.g. scaffold systems, mobile elevated working platforms, etc.

The risk assessment requirement is;

Every employer shall ensure that a ladder/stepladder is used for work at height only if a risk assessment under regulation 3 of the Management of Health and Safety at Work Regulations 1999 has demonstrated that the use of more suitable work equipment is not justified because of a low risk and;

- (a) The short duration of time; or
- (b) Existing features on site which cannot be altered.

If steps/ladders are to be employed, they must only be used for works of short duration and then only if a three-point physical contact is maintained at all times. It is important not to over reach from the ladders or stepladders.

Rung ladders if used are to be secured to a structure or firmly supported, i.e., 'footed' by a mechanical or stop of 2nd person at all times. Persons footing ladders shall do so in accordance with the applicable guidance offered by the HSE. Ladders shall extend at least 4 rungs above any working platform.

The use of trestle / hop ups, are prohibited at all times on all projects.

All operatives, when erecting, dismantling and moving mobile aluminium towers must be trained by a competent training provider. Evidence of such training must be provided before personnel are permitted to undertake such operations.

Construction Phase Plan

Work or Testing on or Near Live Apparatus

The work must only be done by a competent person who has the appropriate certification to demonstrate their ability to work in respect of any testing or inspection.

Where adjacent exposed live apparatus is present which gives rise to danger, appropriate Certification will be held by those qualified to carry out testing and inspection.

Competent Persons must ensure that where practicable they screen off any adjacent exposed or unprotected apparatus which may be considered Live.

Where necessary to prevent injury, approved insulated tools, insulating stands or mats, insulating gloves, as appropriate, must be used.

Only suitable test instruments and test probes should be used.

Consideration should be given to the competent person being accompanied by another competent person or competent persons if the presence of such persons or persons could contribute significantly to ensure that injury is prevented. Any accompanying competent person should be trained to recognise Danger and if necessary to render assistance in the event of an emergency.

Working in Adverse Weather Conditions

If working during adverse weather conditions all required P.P.E. must be worn.

The weather will be taken into account in all site operations as it impacts our ability to work (visibility; ground conditions; safety) and ultimately the well-being of our team.

Everyone on the site must be prepared for changes in the weather and temperature and adapt their working practices accordingly. Considering the weather must be a factor in contractors planning and risk assessment.

RELATED DOCUMENTS

Detail from the Pre-Construction Information Briefing has been incorporated into this plan.

Other relevant pre-construction documents relating to the planning application for the site are available electronically on request from the Site Manager.

The compliance provisions of relevant documents for example planning permission are incorporated into this plan.

As the site has been in agricultural use for many years there is limited relevant preconstruction documentation directly relating to the site.

The following information is displayed in the site office and common areas, copies available electronically from the Site Manager and copies of documents with * are issued at induction:

Form F10 and updates

Emergency Management Plan

Route Card

Site Rules*

Site Induction*

Details of First Aiders and Fire Wardens

The following information is available annexed to this plan:

Annex

1. F10
2. Emergency Management Plan
3. Site Plan and No Go Areas
4. Contractor Method Statements
5. Contractor Risk Assessments
6. COSHH Assessments
7. Site Specific Risk Assessments
8. Permits to Work