



Ashurst C of E Primary School Management Plan – Solar Photovoltaic System

Site Address	School Lane, Ashurst, Steyning, West Sussex BN44 3AY	
Prepared By	Amanda Hopper	Study Manager
Technical Specialists	Andrew Mylroi Lamont Graham Young	Design Engineer Electrical Engineer
Approved By	Gareth Jefferies	Operations Director
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1 Introduction

Ashurst C of E Primary School, part of the Diocese of Chichester, aspires to achieve net zero by 2030. The school wish to install a rooftop solar photovoltaic system to reduce its dependency on grid purchased power to improve resilience and support its net zero aspirations. This is part of a wider decarbonisation project, with the installation of an air source heat pump and loft insulation already having been undertaken.

The purpose of this document is to demonstrate how the proposed development will be managed during installation, operation, and decommissioning, ensuring:

- Safeguarding of pupils, staff, and visitors,
- Protection of residential amenity,
- Compliance with local and national planning policy,
- Minimal environmental, visual, and noise impacts.

1.1 Site Location and Description

Ashurst C of E Primary School is located near the village of Ashurst, north of Steyning in West Sussex. The setting is in active educational use and includes classrooms and some office areas. The school consists of the Former School Master's House, which was built in 1870 and is Grade II Listed. The school has been extended twice.

Figure Introduction-1 below shows the site boundary. Site photos are provided in [Appendix A](#).



Figure Introduction-1: Site boundary, taken from Google Earth

1.2 Description of the Proposed Development

The proposed development is for the installation of a single solar PV system to include 2 arrays with a total of 14 solar PV rooftop panels. These will be installed on the slate roof using a rail mounted system (Figure Introduction-2). Total generation capacity is 6 kWp. Drawings of the proposed layout are provided in [Appendix B](#).

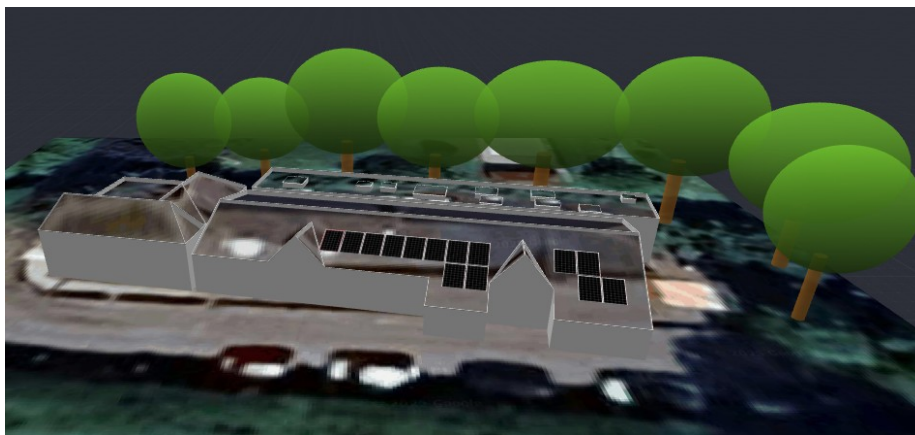


Figure Introduction-2: Ashurst C of E Primary School solar PV model output representation

The solar PV arrays are mounted across the roof in rows facing south. Further information and panel details are provided in [Appendix C](#). A single inverter will be internally mounted within the building.

The proposed panel sizes of 1762 (L) x 1134 (W) x 30(D) mm are to be mounted in a portrait orientation. There is a small (130 - 150mm) height increase of the roofline from the racking and depth of the solar panels (Appendix C, Proposed elevation drawing).

Each panel weighs 22kg with an additional 750g for the optimiser unit, racking and roof hooks add an additional load of around 3-5 kg per panel. A roof structural survey has been conducted, and wind/snow loads are acceptable.

A battery energy storage system (BESS) is not being considered, though the proposed inverter has future battery connectivity options.

1.3 Planning Context

The proposal aligns with:

- **National Planning Policy Framework (NPPF)** – supporting renewable energy and climate change mitigation.
- **Horsham District Council Local Plan** – policies supporting sustainable development and low-carbon energy generation.

The development is considered appropriate in scale and use and does not adversely affect the operation of the school or character of the surrounding area.

1.4 Carbon Emissions Reduction

The solar PV system has been modelled using historic energy consumption data and a prediction of annual power generation. Following the installation of solar PV, the air source heat pump and loft insulation, it is expected that the school's total carbon emissions will reduce from 191 to 13 tonnes of carbon dioxide equivalent (tCO₂e) over a 20-year period (the expected life of the system).

2 Project Team and Responsibilities

Company	Responsibility
Applicant / school: Ashurst C of E Primary School	Overall responsibility
Principal contractor: ReEnergise	Installation and site management
Solar PV installer: TBC, following tender	Technical installation and commissioning
Structural engineer: Salluz Construction Consultants	Roof capacity confirmation
Planning consultant: Aspect 360	Planning compliance and liaison

3 Construction Management

Programme and	It is anticipated that the solar PV system will be installed and
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duration of works	commissioned during the school summer holiday in late July / August and will take 4 to 6 weeks.
Construction access and deliveries	All deliveries will use the school's main entrance from School Lane. There will be no heavy goods vehicles required beyond those required for initial panel delivery. Deliveries will be managed to reduce traffic movements.
Working hours	0800 – 1800 Monday to Friday.
Storage of materials and equipment	Materials and equipment will be stored within the school grounds in a restricted area dedicated to the project. Temporary fencing will be used as needed. The school grounds are protected by perimeter fencing to the rear and a low wall to the front.
Scaffolding	Temporary scaffolding will be used for the duration of the works.
Contractor parking and staff welfare	Parking is available on School Lane and at the community park pavilion car park opposite the school. Welfare facilities will be provided as necessary by the contractor for the duration of the project.

4 Amenity and Environmental Management

Noise and vibration control	Noise will be limited to the rooftop installation activities and transport movements.
Wind impact	Wind buffers will be included in the design to minimise impact and prevent uplift (see Appendix C).
Lighting during installation	No temporary lighting will be required.
Waste management and recycling	Waste shall be removed by the contractor to meet compliance.

5 Ecology and Biodiversity

The solar PV system will be fitted with standard bird control deterrent measures which prevent nesting under the panels. This will not impact the local birdlife and is a widely used measure used to protect the array in the long term.

No vegetation or tree clearance is required.

6 Heritage and Visual Impact Management

The solar PV arrays are located on the front of the school on the south facing extension roof and are visible from the roadway, but the design will be sympathetic to ensure minimal impact.

The panels will be black and non-reflective. The risk of glint and glare is minimal due to roof orientation and panel specification. The system is designed to minimise impact on neighbouring properties.

7 Structural and Building Safety

7.1 Roof Structural Capacity Confirmation

A structural survey was completed on the roofs by Salluz Construction Consultants ([Appendix D](#)), and the design of the array has been accommodated to meet the findings.

7.2 Fire Safety Considerations

Risk of fire will be minimised through use of a 'rapid shutdown system', integral to the solar PV system. On detection of a fault, this reduces direct current (DC) voltage to less than 1V per panel, eliminating the risk of DC arcing which is the main cause of fire. Labelling will be provided to inform emergency services of equipment isolation and a location map to be sited at the Fire Alarm Panel in the main building lobby.

7.3 Emergency Access and Shut-Down Procedures

Both DC and AC isolators will be provided adjacent to the solar PV system inverters. Signage will be provided to provide the correct process of isolation / reinstatement of the AC and DC power.

8 Operational Management

The lifetime of the system is anticipated to be approximately 20 years. It will be routinely inspected and maintained to meet manufacturer warranty requirements and ensure operational safety and efficiency and longevity of the system.

Generated electricity will be used by the school. The system will be grid connected with limitation in alignment with the DNO Connection Agreement following a G99/G100 application where excess generation not used on site will be exported back to the grid. It is expected that export of excess generation will peak during the summer school holidays when generation is at its highest and demand at its lowest.

The system will be monitored online or via an app to enable live data analysis.

9 Health and Safety Management

All works will be completed by a reputable competent accredited installer. Health and safety will meet CDM regulations and working at heights controls implemented.

Relevant insurances will be held by the contractor and installer for the works. The relevant operational areas will be restricted during the installation.

Training will be provided to relevant school staff to ensure the continued safe operation of the system.

A rapid shut down system is proposed as a safety measure, as discussed in [Section 7.3](#) and detailed in [Appendix C](#).

10 Decommissioning and Restoration

The system will be decommissioned at end of life and the parts recycled as far as possible or disposed of as appropriate. The roof will be returned to its prior condition should the solar PV system not be replaced.

11 Compliance and Monitoring

Installation will be carried out in accordance with the approved drawing and planning conditions. Ongoing operational compliance will be the responsibility of the school. Complaint handling and community liaison will be the responsibility of the school.

Appendix A – Site Photos



Ashurst C of E Primary School: view looking northeast

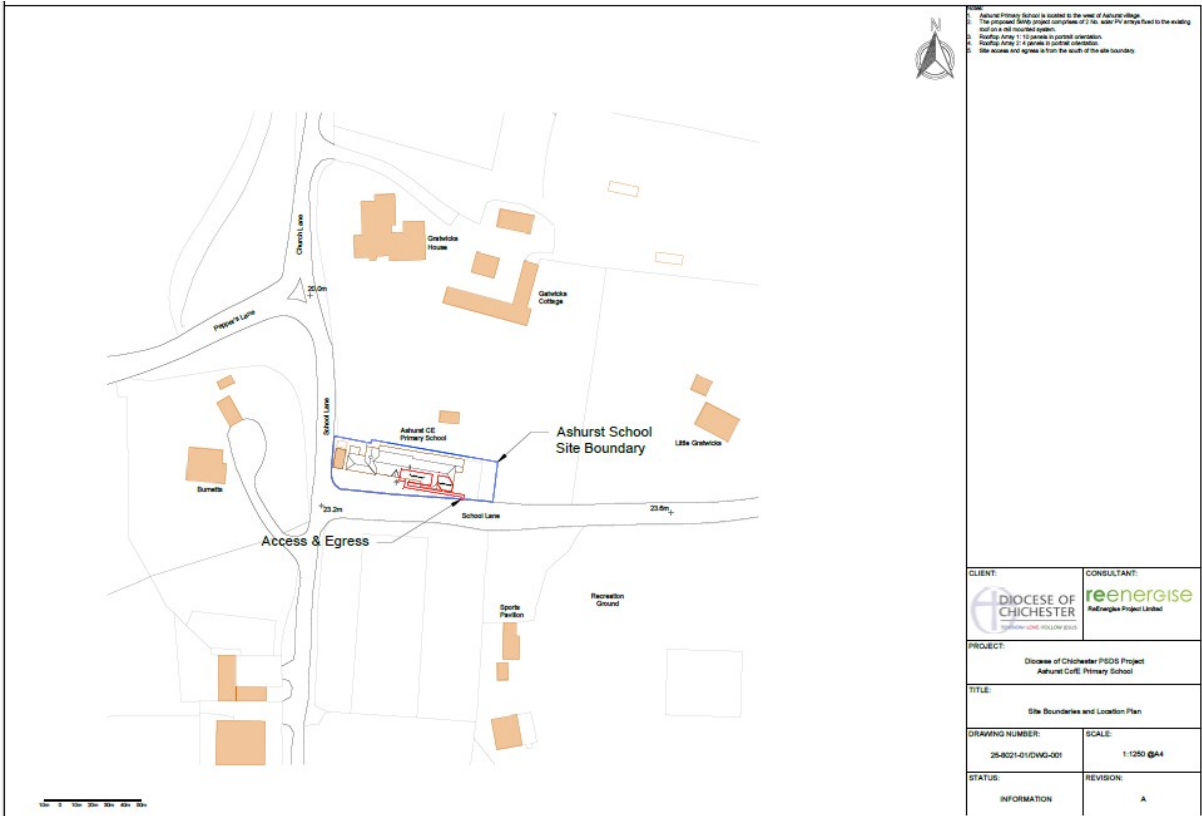


Ashurst C of E Primary School: view looking northwest

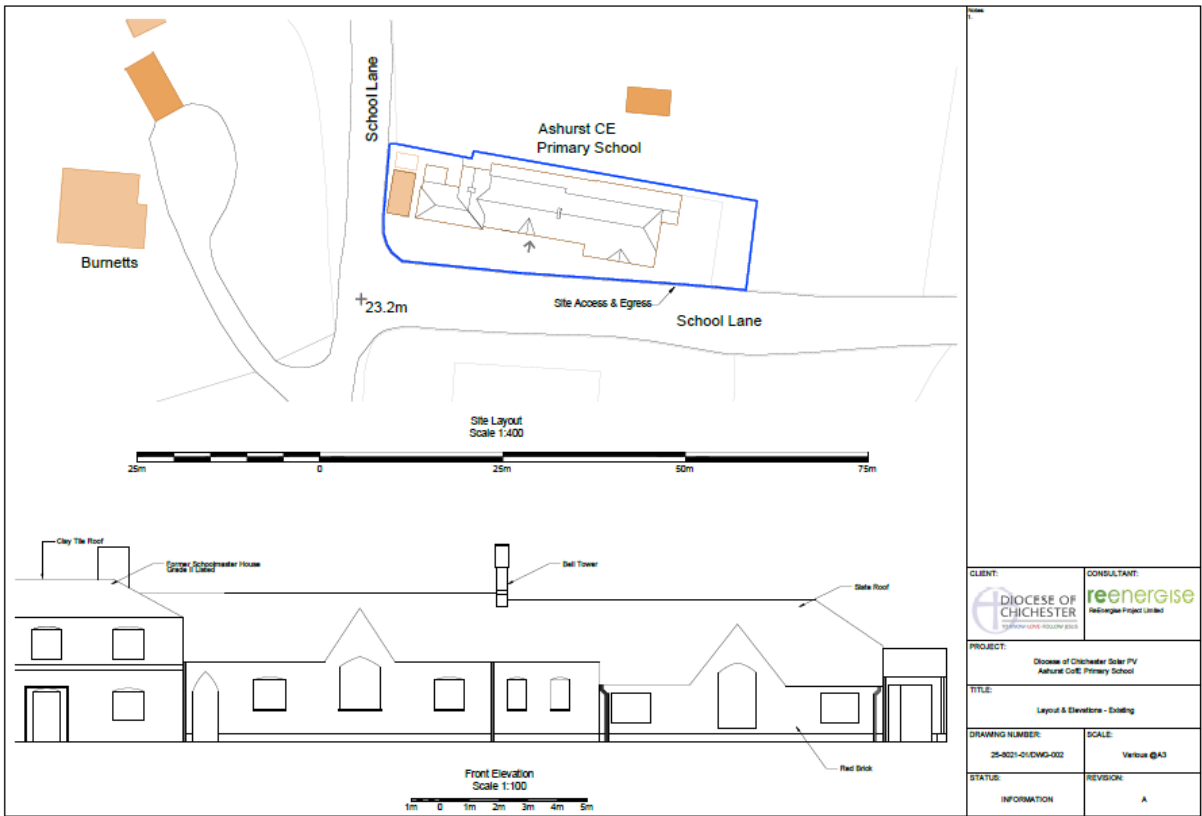


Ashurst C of E Primary School: elevated view from the south

Appendix B – Site Drawings



Site plan depicting proposed location of the arrays



Existing plan and elevations



Proposed plan and elevations

Appendix C – Manufacturer Specifications

Inverter and Energy Management System

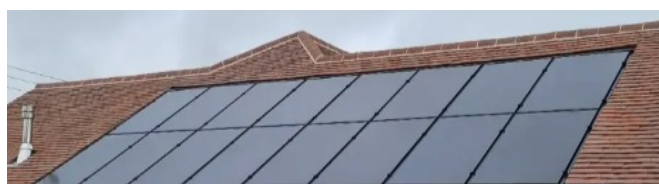
The photovoltaic system shall utilise the SolarEdge optimised architecture, comprising module-level SolarEdge power optimisers to provide continuous Maximum Power Point Tracking (MPPT) at each PV module. This design mitigates losses caused by module mismatch, partial shading, degradation, or soiling, ensuring higher and more predictable energy yield across the array. The power optimisers also provide an integrated Rapid Shutdown System (RSS), compliant with current electrical and fire-safety requirements, automatically reducing DC voltage at module level to a safe value when the inverter is shut down or mains supply is isolated. This significantly improves safety for installers, maintenance engineers, and emergency services, and is particularly suited to public buildings such as schools where electrical safety and regulatory compliance are critical.



Centralised DC-to-AC conversion shall be provided by one SolarEdge SE5000H single phase inverter, rated at 5 kVA, designed for commercial PV applications. The inverter operates with a fixed DC voltage, decoupling array design from inverter MPPT constraints and enabling longer string lengths and flexible array layouts. The SE5000H includes advanced monitoring via the SolarEdge monitoring platform, allowing real-time performance tracking at module, string, and inverter level, as well as fault detection and remote diagnostics. The inverter supports export limitation, grid code compliance, and integration with site energy management systems, making it suitable for schools seeking to optimise self-consumption, meet grid connection requirements, and support future battery storage integration.

Solar PV Panels

The photovoltaic array shall be constructed using JA Solar 465 W monocrystalline all-black PV modules, incorporating high-efficiency half-cut cells and multi-busbar technology to deliver strong performance under both full-sun and low-irradiance conditions. The modules feature a non-reflective, all-black aesthetic, achieved through black anodised frames, black backsheets, and anti-reflective coated glass, making them particularly well suited to installations on public-facing buildings such as schools where visual impact is a consideration. The advanced cell architecture reduces resistive losses and improves shade tolerance, while robust mechanical design ensures long-term durability, resistance to wind and snow loading, and consistent performance throughout the operational life of the system.



JA Solar 465 W monocrystalline all-black PV modules

JAM54D41-465/LB N-Type series Panel specification:

- Length: 1762 mm
- Width: 1134 mm
- Thickness: 30 mm
- Weight: ~22 kg.

JA Solar modules are manufactured under strict quality control standards and are certified to relevant international and UK-adopted standards for electrical safety and performance. Each module offers a high power density, allowing efficient use of available roof area and reducing balance-of-system requirements. The specified 465 W format provides an effective balance between module size, handling, and output, supporting optimised system layouts for commercial roofs. These modules are well suited to integration with modern inverter platforms and energy management systems, enabling schools to maximise daytime self-consumption, support export-limited operation, and achieve long-term, reliable renewable energy generation with minimal visual intrusion.

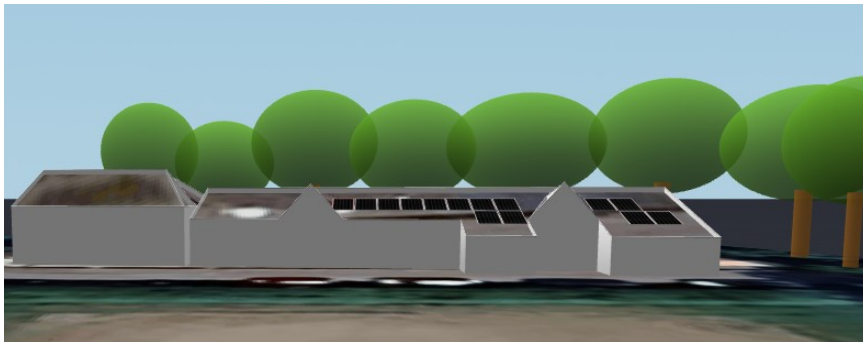
Mounting Systems

A rail system is proposed that is suitable for clamping directly onto the roof hooks through the slate tiles to the joist support system below.



Rail mounting systems

The proposed solar PV installation model output is shown below.



Model output for the proposed solar array layout

Appendix D – Structural Assessments

							
ASHURST C of E Primary School Assessment of Existing Building Roof Structure For PV Installation							
Proposed PV on roof area as shown in photo	Client: ReEnergise Ltd Salluz Ref: 848 Building: Front Roof Date: 27/08/2025						
Statement of Purpose The building inspected has been assessed for the capacity of the existing roof structure to support the proposed loading from the installation of solar PV panels.							
Location Ashurst C of E Primary School BN44 3AY	Date of Inspection 21st August 2025						
Inspector Eamon Stafford BSc(Eng), MStrutE - For and on behalf of Salluz Ltd							
Limitation of Inspection Inspection was visual only							
Carried out from:- Ext. Ground Level Yes Within Roof Space: Viewed from roof hatch level only	Floor Level: Gnd FL. Roof Level: No Scaffold Access: To roof ceiling hatches only						
Building Approx Building Age:- 150 years approx Later extension 100 years approx Roof Construction:- Welsh slate tiles on battens, on felt on timber rafters (original building queen post truss with timber purlins), lathe and plaster ceiling. Any special considerations:- We understand that ceiling level is also to be insulated.							
Information Reviewed Site Plan Existing drawing no. 24-1161-01/DWG-002							
PV Installation Fixed below slate. Advised of overall loading of 0.17 kN/m2							
Loadings <table border="0"> <tr> <td>Original Roof Dead Load (Approx.)</td> <td>1.74 Kn/m2</td> </tr> <tr> <td>Probable Original Roof Imposed Load</td> <td>0.75 Kn/m2</td> </tr> <tr> <td>TOTAL Original Loads</td> <td>2.49 Kn/m2</td> </tr> </table>		Original Roof Dead Load (Approx.)	1.74 Kn/m2	Probable Original Roof Imposed Load	0.75 Kn/m2	TOTAL Original Loads	2.49 Kn/m2
Original Roof Dead Load (Approx.)	1.74 Kn/m2						
Probable Original Roof Imposed Load	0.75 Kn/m2						
TOTAL Original Loads	2.49 Kn/m2						
Attachments:- Roof Loading Assessment							
							
CONCLUSION Is it structurally ok for the proposed weight of PV arrangement on the roof YES							

