

Building Integrated Photovoltaics



Polysolar



The Polysolar Mission

Polysolar



We believe that every building can become a source of renewable energy



So we are helping people adopt a more sustainable way of living



We are doing this by building transparent PV glazing





Poly and Mono Crystalline Silicon – Semi-Transparent – Glass-Glass (PS-MC-Series & PS-PC-SE)

- c-Si PV cells embedded in glass
- Opaque to 50% light transmission
- 200 Wp/m²
- 19% efficiency
- Standard panel size – 1770mm by 1049mm

Main Applications – Carports, canopies, Facades

Cadmium Telluride - Transparent Thin-film – Glass-Glass (PS-CT-Series)

- CdTe thin-film PV
- Opaque to 50% light transmission
- 120 Wp/m²
- 12% efficiency
- Standard panel size – 1200mm by 600mm

Main Applications – Carports, Canopies, Facades, Greenhouses, Conservatories

Mono-crystalline Silicon Panels and flexible panels (PS-HG-FL series)

- Opaque (c-Si)
- 208 Wp/m²
- 21% efficiency
- Standard panel size – 1660mm by 996mm
- Only 4kg so great for where conventional panels are too heavy for the roof

Main Applications – Roof mounted solar warehouses & factories, polytunnels (Agrivoltaics)

Amorphous Silicon – Transparent Thin-Film (PS-ASG-Series)

- a-Si thin-film PV
- Opaque to 50% light transmission
- 70 Wp/m²
- 7-8% efficiency
- Standard panel size – 1100mm by 1300mm

Main Applications – Greenhouses, Facades





Established Client Base

Polysolar

Sainsbury's

- Petrol station canopy
- 23 kWp system
- 400 m² of transparent BIPV



Hathersage swimming pool

- Heritage transparent glass canopy
- 8.1 kWp system
- 91 m² of transparent BIPV



CANARY WHARF GROUP PLC

- Bus Shelter with battery storage included
- 3kWp system



South Gloucestershire Council

- Carpark Canopy including EV charging
- 17.1kWp system
- 90.5m² of transparent BIPV



Sandwell Metropolitan Borough Council

- West Bromwich Market
- 360m² of transparent BIPV





Solar Canopies

- Available with Cadmium Telluride, Mono-crystalline silicon or Conventional solar panels mounted on the carport roof
- Glass-Glass options in Opaque to 50% light transparency
- Battery storage and roof mounted Solar are optional



- **Solar EV Carports** with Cadmium Telluride, Mono-crystalline silicon or Conventional solar panels mounted on the carport roof
- Glass-Glass options in Opaque to 50% light transparency
- EV charging ports
- Available and battery storage are optional



Solar Facades

- Cadmium Telluride or Amorphous Silicon Transparent Panels
- Opaque to 50% Light transparency
- Battery storage and roof mounted Solar are optional



Case Studies



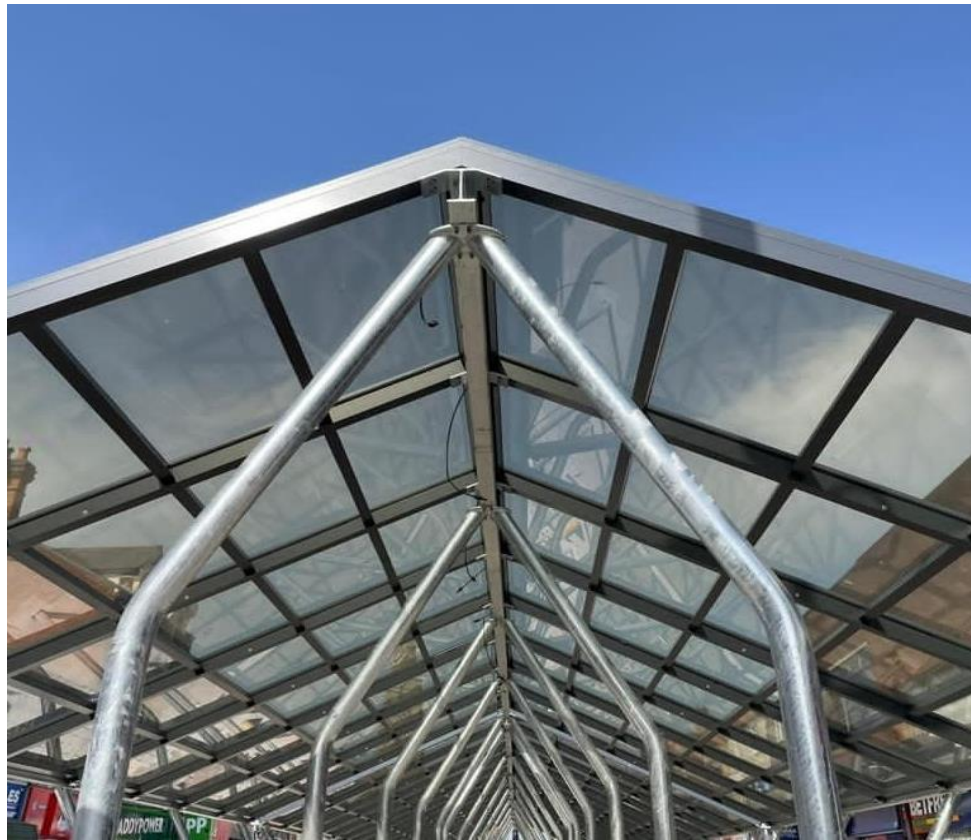
Shell's first Electric Vehicle Only Charging Hub

- Date of completion: February 2022
- Location: Fulham Road, London
- Client: Shell
- Specifics:
 - 28.8 kWp system
 - 156 m² of semi-transparent BIPV
 - PS-MC series





- Location: West Bromwich
- Client: Sandwell Metropolitan Borough Council
- Specifics:
 - 40 kWp system
 - 34 market stalls in total
 - PS-CT series - 50% transparent





- Date of completion: December 2015
- Location: Derby
- Client: Donington Farm Hotel
- Specifics:
 - 8 kWp system
 - 100 m² of transparent BIPV
 - PS-CT series - 20% transparent



- Date of completion: October 2020
- Location: Bristol and Bath Science Park
- Client: Gloucestershire City Council Specifics:
 - 34 kWp system + 5 x 50kW EVCP
 - 94 m² of transparent BIPV
 - PS-CT-64- 20% transparent



- Date of completion: April 2022
- Location: Sudbury and Stowmarket Leisure Centres
- Client: Mid-Suffolk and Babergh District Council
- Specifics:
 - Stowmarket - 196kWp - 72 bays - 200kWh battery – 8 EVCP
 - Sudbury - 106kWp - 42 bays - 300kwh battery - 8 EVCP



Tewkesbury Solar Carport (PM-Frame)

- Date of completion: June 2022
- Location: Tewkesbury Council Building and Leisure Centre
- Client: Tewkesbury Borough Council
- Specifics:
 - Large single cantilever South facing solar carport covering 72 car parking bays
 - PV Output: 256kWp





- Date of completion: July 2022
- Location: 4 Sites across Salford, Manchester
- Client: Greater Manchester Combined Authority
- Specifics:
 - 756kWh Battery Storage across four sites.





- Date of completion: April 2015
- Location: London
- Client: Canary Wharf Group
- Specifics:
 - 3 kWp system
 - 45 m² of transparent BIPV
 - PS-CT series - 20% transparent



Gloucester Council Shire Hall Cladding

- Date of completion: May 2018
- Location: Gloucester
- Client: Kier
- Specifics:
 - 35 kWp system
 - 544 m² of BIPV
 - PS-A and PS-C series



Gibraltar Car Park

- Date of completion: December 2018
- Location: Gibraltar
- Client: Teur
- Specifics:
 - 9.2 kWp system
 - 150 m² of BIPV
 - PS-CT series - 20% transparent



Greenhouse project - Renewable Raspberries

- Date of completion: February 2022
- Location: Kent
- Specifics:
 - 18.1 kWp
 - Transparent Cd-Tel panels

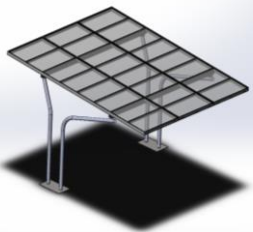


Smart Energy Home Solutions

Solar Carport (Y-Frame)

- Date of completion: August 2021
- Location: Farnborough
- Installed at Fully Charged Show
- Specifics:
 - 1.5 - 5.3 kWp system
 - 18 – 28m² of BIPV
 - Available with Transparent (PS-CT) or semi-transparent (PS-MC) series panels
 - Opaque to 50% transparency

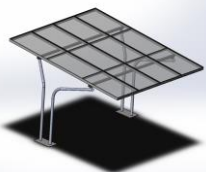
PS-CT Panels in Landscape



PS-MC Panels in Portrait



PS-CT Panels in Portrait



Standardised Domestic canopy

- Four legged design up to 6m wide by 5m deep. (Can be extended to any size required)
- Transparent (PS-CT) or semi-transparent (PS-MC) series panels
- Opaque to 80% transparency
- Solar glass incorporated into Polysolar aluminium framing system





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Any Questions?