eps SOLAR

SOLAR
Photovoltaics

Clean Renewable Energy Source



Rethinking Energy

Solar Power
Your Home



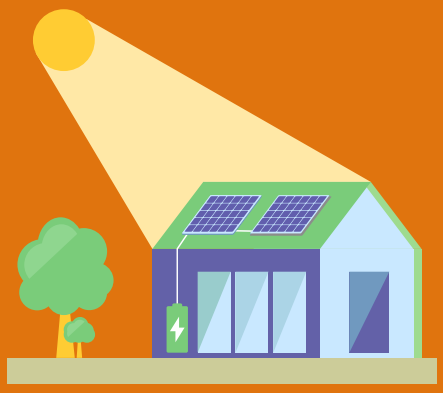
Benefits of Solar PV

Renewable Energy

Free Electricity

Reduces Carbon Footprint

Energy Storage



What is Solar PV?

Solar PV is a technology that converts sunlight into DC renewable energy by absorbing the rays provided by the sun. Photovoltaics (PV) represents the use of semi-conducting materials that exhibit the 'photovoltaic effect'. The photovoltaic effect is the term for the conversion of sunlight into usable electricity. Utilising this phenomenon allows us to produce clean renewable energy while both reducing our annual electricity cost and our Carbon footprint.

Why Choose Solar PV?

Clean Renewable Energy Source

Reduces your carbon foorprint. Under the Climate Action Plan 2023, in Ireland, we have committed to halving our emissions by 2030 and to reach Net Zero by 2050. This puts a responsibility on all of us, both individually and within the private and public sectors to take action to reduce our carbon footprint and emissions.

For EPS – and our community – sustainability has always been at the core of what we do and in addition to our core services and offering, we also have a responsibility to lead by example and to encourage and enable our employees, customers, supply chain partners to reduce their carbon footprint.

Affordability

An EPS solar solution is an extremely cost-effective investment with an estimated payback period between 4-6 years depending on the system implemented with a lifespan of 25 years+ compared with market equivalent payback periods of 7-10 years.

SEAI also operates an incentive grant support scheme which provides up to €2,100 for each domestic system installed.

Components Used in a PV System

The four main components used in a PV system are PV solar modules/panels, an inverter is required to convert energy to AC, (Alternating Current) a PV mounting kit/system and battery storage. Typically, the area that the PV system will be installed on influences the PV system's panels sizing and configuration, which, in turn, determines the system's generation potential, inverter size and optimum battery size required.

PV panels generate DC (Direct Current) power. Domestically, AC power is used and an inverter is required to convert the generated DC energy to AC, allowing the power travel over a distance without losing energy along its path safely.

Three types of inverters are used currently, namely:
- on-grid inverter
- off-grid inverter
- hybrid inverter



PV Panels

Solar panels are referred to as PV modules in the PV industry. PV modules are the electricity generation part of any solar/PV system. The semiconductor material used in the modules generate DC electricity from solar radiation. Solar radiation is typically measured in W/m2.(watts per metre squared) which can fluctuate significantly from morning to night and from season to season, making the generation of electricity variable throughout the year.

Each module/panel undergoes testing referred on the module's datasheet as STC (Standard Test Conditions). For ease of standardisation, these conditions are at 25°C and a solar radiation of 1,000 W/m2. In a real-life environment, both parameters will change over the course of the day, particularly solar radiation which can fluctuate between 0-1200 W/m2 here in Ireland, depending on the time of year. The power/electricity that a PV module will generate at any given time is highly dependent on the solar radiation that the PV module is exposed to. The higher the value of solar radiation, the higher the power or electricity that is produced.



Inverters

Inverters are a crucial part of the PV eco-system. As the electricity from PV modules produced is DC form, the electricity must be converted to AC to be utilised within your home or for export to the grid. An inverter does this by converting the DC power generated to a sinusoidal wavelike AC power at either single phase (residential buildings/dwellings) or three phase (commercial entities).

We are Irish distribution partners for eCactus.





PV Mounting System/Kit

The mounting system is the stem of the PV system. Mounting systems can be designed for and positioned for on-ground or rooftop applications or in other spaces such as pergolas, car parks, bike shelters, etc. The location where the mounting system will be installed influences the design, as wind, snow and static loading must be factored into the mounting system design to ensure that the installation is safe, secure and ensures structural integrity. The mounting systems are typically made from aluminium alloy and stainless steel and are anodised or galvanised to ensure weathering will not impede the lifespan of the mounting system.

Battery Storage

A battery storage system is an excellent way to store surplus or unused power for use later when solar energy is no longer available. In effect, it extends the benefit of capturing and using the free energy from your PV system. A battery storage system is also excellent for storing electricity that you purchase from the grid at off-peak times at reduced costs for usage during peak cost times. A battery or energy storage system is an essential part of any PV system, as it allows the storage of energy at off-peak rates for use later and at the same time, allows for top up with solar energy throughout the day time.



FuturaSun
580W M Silk Nova
All Black

580W PANEL



The FuturaSun 580W Monocrystalline module is one of the highest quality PV modules currently offered on the market. The use of the newest half cut 144 cell technology allow for high performance for commercial and utility scale installations while cutting down on the number of panels required while maximising the usable area.

These innovative solar modules are specifically designed to provide unparalleled efficiency and performance, elevating your solar experience to new heights.

The FU 580 M Silk Nova modules boast an impressive power output and are built with premium-quality materials, ensuring outstanding durability and reliability in any environment. The Silk Plus technology employed in these modules enhances light absorption, resulting in higher energy production even in low-light conditions.

All PV modules come with a 25 year performance warranty and 25 year product warranty with third party insurance.

- The new standard in photovoltaic technology
- Max power decrease from 2nd year 0.4%/ year
- 144 M10 N-type half-cut cells first year
- High efficiency & enhanced low light performance

eps FuturaSun anticipate tomorrow **Exclusive Distributor** for Ireland & UK



FuturaSun
450W Duetto (bifacial) Silk Nova *All Black*

450W PANEL



The new double-sided n-type Silk® Nova Duetto All Black high efficiency glass/glass panel with 96 half-cut cells, double-sided n-type cells, the Silk® Nova Duetto All Black module also converts reflected light from the rear surface into energy. Depending on the nature of the reflective surface and the installation conditions (for example the distance from the ground and use of trackers).

The panel is made of 2mm clear tempered glass and guarantees maximum mechanical stability and exceptional weather resistance. The use of glass instead of a back sheet provides another advantage, this material is flame retardant.

eps FuturaSun anticipate tomorrow **Exclusive Distributor** for Ireland & UK

- 30 year performance warranty and 15 year product warranty
- 450W power and up to 22.52% module efficiency
- Improved long-life stability
- Improved low-light perormance
- 96 G12R MBB n-type bifacial



LEAPTON
LP182* 199M66NB
Bifacial All Black

585W PANEL



This is a high-efficiency photovoltaic module that uses advanced TOPCon technology and N-type silicon cells for outstanding performance and efficiency.

The half-cell and multi-busbar design optimises light capture and minimises electrical losses, providing stable and high energy output.

The dual glass construction increases mechanical strength, weather resistance and longevity, providing effective protection for the module's cells.

eps LEAPTON **Distributor** for Ireland & UK

- 30 year power warranty and 25 year product warranty
- N-Type cells TOPCon
- Bifacial with dual glass
- Harsh environmental adaptability
- High efficiency
- Excellent low-light performance



eCactus AGAVE-SH 5kW + 5kWh/10kWh Battery

All-In-One

Single Phase, 10 Year Warranty

HYBRID INVERTER



The eCactus 5kW all-in-one storage system is a versatile, reliable, high-quality solar product, which ensures you get the most out of your PV system. It combines a hybrid inverter and an LFP (Lithium FerroPhosphate) battery into one unit, suitable for both on-grid and off-grid systems. The LFP technology provides improved thermal and chemical stability.

It offers up to 150% oversizing and has one of the highest DC/AC conversion efficiencies. It also has one of the best MPPT operating ranges in the market and is specifically designed to combat generation challenges in low light conditions such as Ireland & UK, particularly in winter.

The system can use up to 10 kWh battery storage, more than enough to keep your domestic home powered by day, but with more compact options available for different needs. It complies with all ESB micro-generational regulations.

This unit is ideal for use in critical systems, as it includes a built-in backup box for UPS-level preparedness during blackouts, with a switching time of less than 10ms.

- Hybrid inverter
- Quick & easy installation
- Low start up: 90V
- Wide MPPT range: 100-550 V
- Max convertible power: 5kW
- Power supply when grid power fails
- High voltage LiFePO4 battery
- Accomodates up to 2 x 5.12kWh batteries

eps WHES AUTHORISED DISTRIBUTOR **Distributor** for Ireland & UK

PowerPod Ultra-SH

5kW + 4.99 to 19.9kWh Battery with Heat Pads

HYBRID INVERTER

All-In-One, *10 Year Warranty*

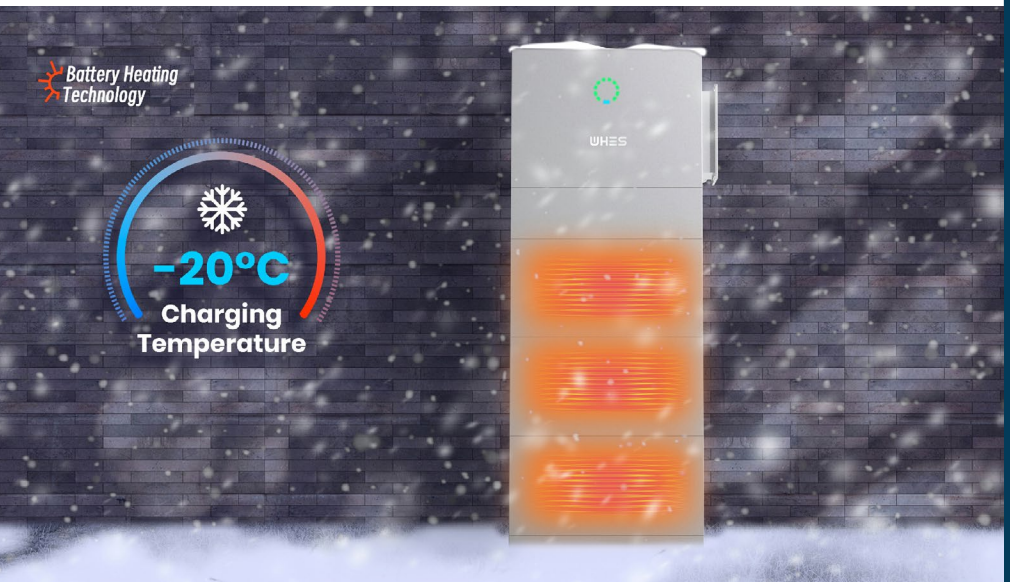


The PowerPod AGAVE-SH Ultra (5kW + 5-19.9 kWh) is an all-in-one home energy storage system combining a high-efficiency single-phase inverter with modular LiFePO4 battery units. Designed for homes needing a balance of power output and storage capacity, with backup, solar shifting and optional cold climate operation.

The Agave-SH Ultra is a high-performance, all-in-one residential energy storage system combining a hybrid inverter with modular LiFePO4 batteries (up to 20kWh). Designed for fast installation and reliability, it offers <10ms UPS-grade backup, 97.8% efficiency, and smart monitoring via app. It is optimised for energy independence, cold-climate operation and grid-tied, on-grid, or off-grid usage.

Confidence during blackouts, with a switching time of less than 10ms. Low start-up voltage (90V), wide MPPT range (50- 560V) and supports up to 150% PV oversizing. IP65 rating for indoor/outdoor installation and quiet operation. Designed for high voltage LFP battery systems, with options for cold climate heating down to -20C. Supports up to 5 units in parallel.

eps WHES AUTHORISED DISTRIBUTOR **Distributor** for Ireland & UK



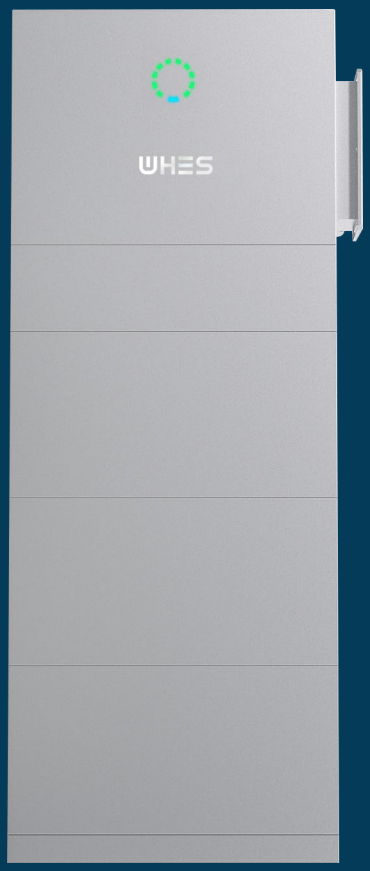
- Up to 19.9kW battery power
- Up to 98% inverter efficiency
- Wide MPPT Range: 50-560 V
- Built in meter function
- 10,000W DC input power
- Power supply when grid power fails
- High voltage LiFePO4 with battery heating technology
- -20°C operating temperature

PowerPod AGAVE-TH 3 PHASE

10kW + 9.98 to 29.9kWh Battery with Heat Pads

All-In-One, *10 Year Warranty*

HYBRID INVERTER



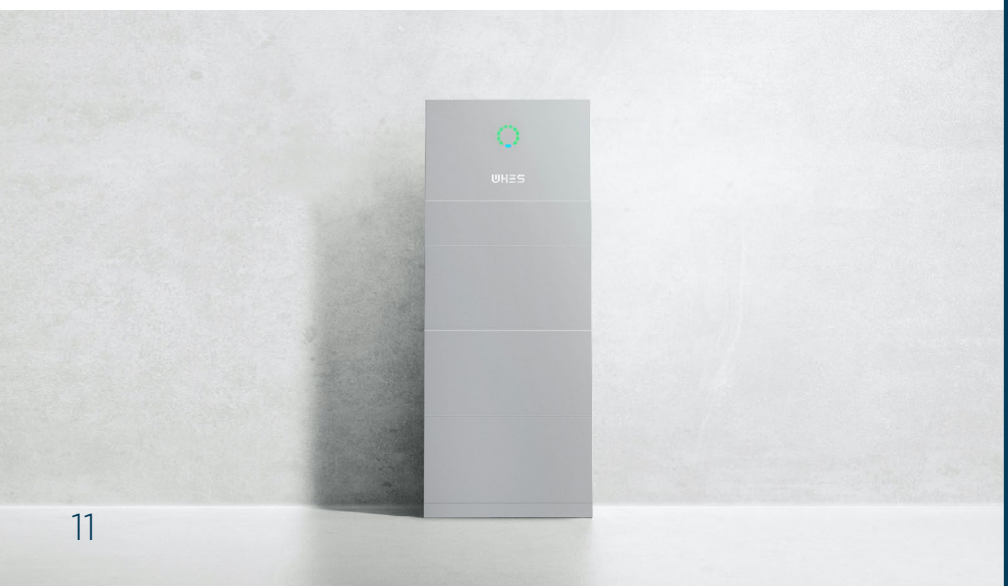
Agave-TH, a high-efficiency, 3 phase high voltage hybrid all-in-one Battery Energy Storage System (BESS) designed for commercial use in Ireland featuring modular LFP batteries, a 10 year warranty and IP65 protection.

The 3 phase 10kW all-in-one with up to 29.9kWh Lithium Iron Phosphate (LFP) with high safety (UL 9540A certified) battery system is the ideal choice for indoor or outdoor installation. Integrated plug-in terminal replaces manual wiring, saving 75% installation time between modules since all units are cableless, stackable module connection, 4 layer protection design, built-in fire suppression and IP65 rating for indoor/outdoor use.

Max PV efficiency of 98.5% and max MPPT efficiency of 99.9%. It allows for scalable capacity up to 149.76 kWh (via 5 parallel units) with a sleek, compact design that reduces installation time by 75%.

- Up to 29.9kW battery power
- Up to 98% inverter efficiency
- Wide MPPT range: 180-980 V
- Built-in meter function
- 20,000W DC input power
- Power supply when grid power fails
- High voltage LiFePO4 with battery heating technology
- -20°C operating Temperature

eps WHES AUTHORISED DISTRIBUTOR **Distributor** for Ireland & UK



ECOS App
Home Energy Management System

Helps manage your smart home

ECOS HOME ENERGY APP

iOS

Android

Benefits

- View energy usage in real-time
- Record and summarise energy usage
- Usage information will be instantly delivered
- Insights into home energy use
- Customisable

Features

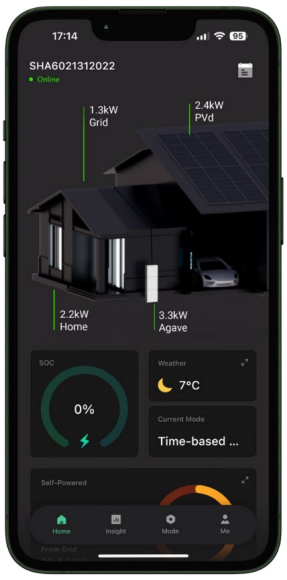
Three-Mode: Efficiency Charging & Discharging

The ECOS Home Energy app comes with three modes: Self-Powered, Load-Shifting and Back-Up.

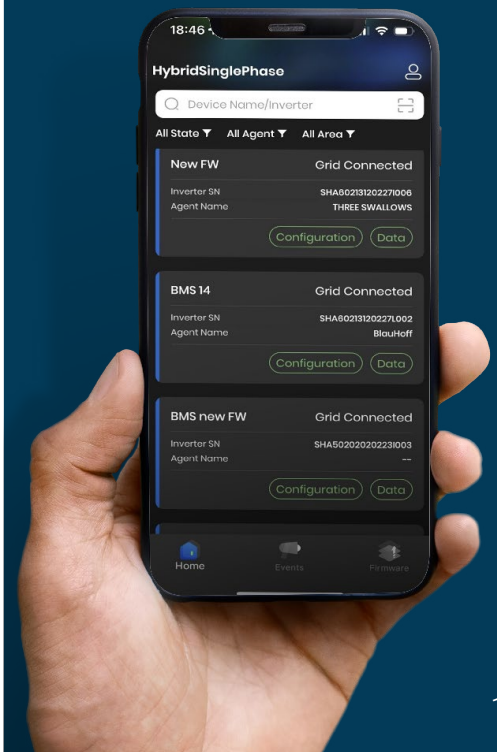
Multiple-Mode Insight

Get a superior insight into your home energy usage that will improve your power consumption and reduce emissions.

eps UHES AUTHORISED DISTRIBUTOR **Distributor** for Ireland & UK







EPS All-In-One Residential ESS

5kW inverter + 5kWh - 30kWh Battery
Single Phase, 10 Year Warranty



All-In-One Design:

AIO modular system that includes inverter, charger controller, UPS-level switching system and battery modules.

Easy Installation & Capacity Expansion:

- Plug & Play modular design
- Save 50% installation time
- Save 50% installation space
- Scalable up to 30.72kWh

High Safety:

- IP65 outdoor design 3-level (cell-pack-system) protection AFCI standard
- Overload capacity 150% for 10mins

Easy Management:

- Dynamic SOC calibration
- RSD Ready & VPP Ready
- Support remote monitoring through mobile phone
- APP & global Cloud platform available

Distributor
for Ireland & UK

- All-in-one Residential ESS
- 10 years Warranty for inverter
- 10 years Warranty for Batteries
- IP65 indoor or outdoor design
- AFCI (Arc-Fault Circuit Interrupter) as standard
- Overload capacity 150% for 10mins
- Dynamic SOC calibration

Pro Line Range

ROOF & GROUND



What We Offer

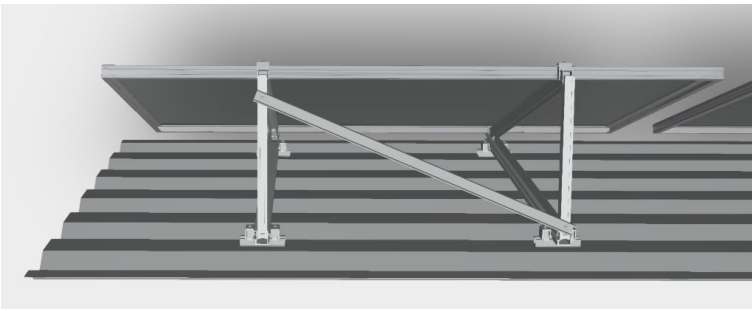
- German made
- 10 year warranty
- Lightweight aluminium
- Stainless steel materials
- Bespoke design for each application
- Allowance for various loads wind/rain/snow

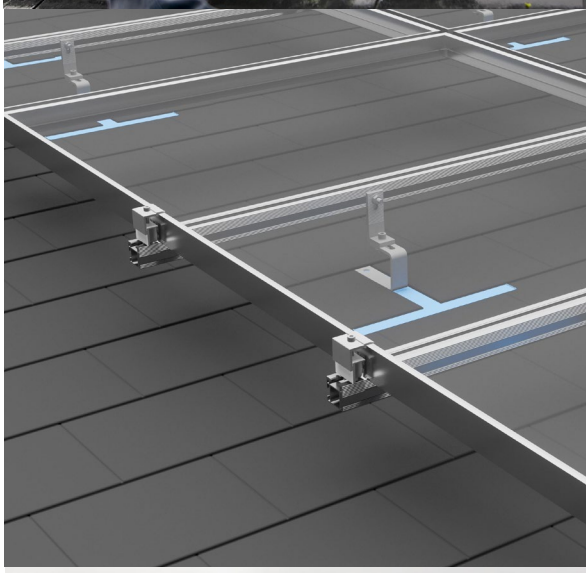


Roof Mounting Panel

- Slate
- Tile
- Flat
- Trapeze

One Panel Mounting System





Lightweight aluminum one Panel mounting is designed to hold any type of Panels and can be used for Ground or Roof mounting. The Mounting can hold any size panel in Landscape position. It is very light to carry & assemble anywhere. This can be supplied with 450W, 580W and 585W panels.



Exclusive Distributor for Ireland & UK

Ground Mounting





TreeSystem for Domestic Ground Mounting:

The beauty of TreeSystems' simple, smart and easy to use product is that it does not require specific skills and complex machinery for installation.

EPS 2 Designed GM Configuration

Max Power 5.8kW OR 11.6kW for Single Phase
Max 10 panel of 580W OR 20 panels of 580W
Max 30 x 580W for three phase inverter and Battery

Advantages:

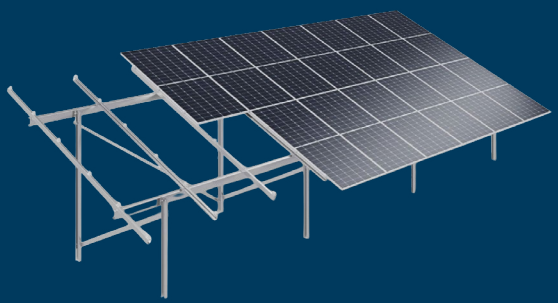
- No concrete footing
- Minimum marking
- No special equipment is required
- Installable on slopes where pile drivers can't work
- Quick and easy mounting
- Immediately resistant
- Strong and reliable
- Suitable for all types of soil and ground

TreeSystem® GROUND MOUNTINGS

Commercial and Larger Solar Plants:

EPS offers a wide range of engineering solutions for ground based solar panels for fixed or tracking systems. We will design structures based on site characteristics, system capacity, panel type and customer requirements.

- The structures are based on galvanised steel profiles, which demonstrate high resistance to corrosion and temperature fluctuations
- Each system is supplied completely with all necessary fastening elements
- We use cold-rolled steel profiles made from S235JR/S355J and S350GD galvanised coil steel depending on the customer requirements
- Minimum corrosion protection of 275 g/m²
- Fasteners made of A2-70 stainless steel

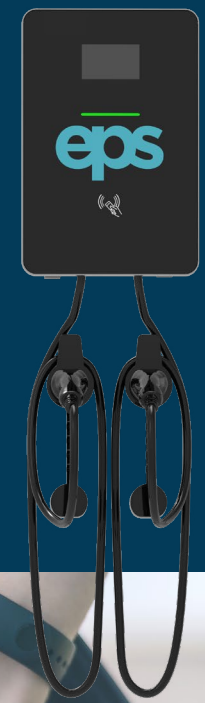


eps SOLARsk **Exclusive Distributor** for Ireland & UK

EPS
Wall Mounted

WALL MOUNTED





Single Phase

7kW EV Charger Single Phase

- Single phase
- Type 2 charging gun
- User-friendly app
- WiFi Enabled
- Compatible with all European EVs
- 2 year warranty

Three Phase

11 kW EV Charger

- 3 phase supply
- Type 2 charging gun
- User-friendly app
- WiFi enabled
- Compatible with all European EVs
- 2 year warranty

44 kW EV Charger (2x 22kW)

- 3 phase supply
- 2 x Type 2 charging guns
- User-friendly app
- WiFi enabled
- Compatible with all European EVs
- 2 year warranty
- Security user card



EPS
Floor Mounted

FLOOR MOUNTED



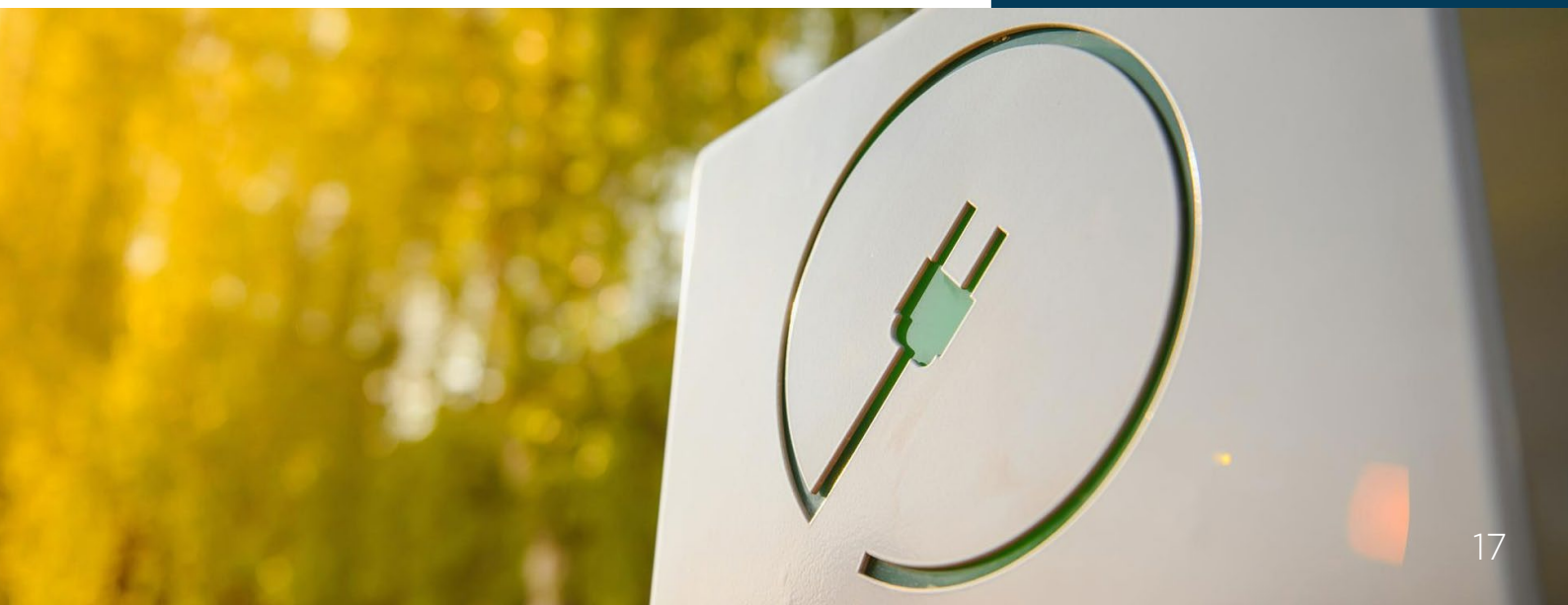
22 kW EV Charger (2x 11kW)

- 3 phase supply
- 2 x Type 2 charging guns
- User-friendly app
- WiFi enabled
- Compatible with all European EVs
- 2 year warranty
- 2 RFI cards with each charger

44 kW EV Charger (2x 22kW)

- 3 phase supply
- 2 x Type 2 charging guns
- User-friendly app
- WiFi enabled
- Compatible with all European EVs
- 2 year warranty
- 2 RFI cards with each charger

NOTE: Chargers up to 250kW available on request.



Solar Structures /Car Ports

Solar car ports or solar structures are an innovative way to maximise the use of existing space for the provision of PV solar solutions for domestic or commercial use. Any solar structure design can be robust and optimised to ensure maximum power generation for all sites. In addition to roof space, the option of utilising free space over car parking areas, patios, sports grounds and supermarkets can provide the ideal opportunity for a solar installation.





Don’t just take our word for it...

I wanted to go solar, but despite the grants, it was just too expensive. When I heard about EPS’ Employee Solar Incentive Scheme, I couldn’t get over the savings. We got the exact same spec system we were looking at previously for almost half the cost. It was a no-brainer!

Katie Fitzgerald, Abbeyfeale

I am so delighted that EPS has been supporting us to go solar through the Employee Solar Scheme program and offering premium-quality solar equipment at a very affordable price available for us. I am happy to see the savings on energy bills.

John Healy, Carragraigue

Through the professional support & advice from the team at EPS, combined with the exceptional value for money, we were finally able to install solar. With production rates currently exceeding our consumption we are generating credits to offset the bills throughout the winter months.

Lillian Walsh, Mountcollins

I have high energy consumption and going solar was my ultimate option. When EPS released the Employee Solar scheme, I signed up right away! Not only am I reducing the carbon emissions, but the best part is - it reduced my electricity bills significantly.

Eugene Lynes, Glanycummane Lower

It’s a good investment and yet a better alternative against rising electricity costs. It doesn’t require much maintenance and the compact All-in-One (Inverter +Battery) looks so sleek and aesthetic that it didn’t bother me placing it inside the house.

Tadgh Mullane, Ballymacmurragh

As a customer of EPS, I was able to avail of their Solar PV Incentive Scheme and got a hugely discounted price for my PV system, while not compromising on the quality of course. The app used with the system is great and I can already see how much money I am saving!

Mary Murphy, Abbeyfeale

I couldn’t be happier by going solar, especially when I received my payback, and I got 100% free electricity! I am delighted that EPS has offered an Employee Solar Scheme programme, making going solar affordable for us.

John O’Brien, Ballard

Installation Partners

EPS, with our official installation partners, provides premium Solar PV equipment exclusively to our employees, customers and partners nationwide, through our PV incentive scheme.

Over 100+ installations and supported by SEAI accredited installation partners & One Stop Shops, the scheme is delivered to the highest quality standards.



Solar PV energy | gosolar.ie | ASEI All Solar Energies Ireland | ashgrove renewables one stop shop | F4 energy | EnviroBead Insulation Systems

epswater.ie

info@epswater.ie



Rethinking Energy

V2