How ATC Logistics generated 40% self-sufficiency with Solar PV & Battery Technology
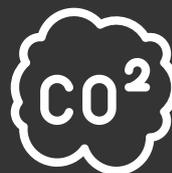
KEY INFORMATION

PROJECT LENGTH
6 MONTHS

INSTALLATION TYPE
ROOFTOP

YIELD
90 MW/H PER YEAR

CARBON SAVINGS
45 TONNES OF CO2/YEAR

MONETARY SAVINGS
€10,000/YEAR ON ENERGY COSTS

THE CHALLENGE

ATC Logistics were found in 1979 by Alan and Patricia Young and Based in Baldonnell, Co. Dublin. ATC Logistics is one of the leader in computer transport and data center logistics in Europe. The company uses 100 megawatt hours of electricity per year, with the 4 on site EV charger equipment provided for staff and customers. ATC Logistrics was looking for a reliable, clean energy solution to reduce electricity costs, lower environmental impact, decrease carbon emissions and generate green energy.

THE SOLUTION

Veep Energy engineered, designed and built a rooftop solar array for ATC Logistics HQ, with zero interruption to the site's operations. The project took 6 months from beginning to end, and there was no shutdown required. Veep Energy provided end-to-end services looking after everything from design to planning to procurement and the installation. The design and planning phases took 4 months, the procurement process took 4 weeks, and on site building was 21 days.

CUSTOMER BENEFIT

Our design allowed ATC Logistics 40% self-sufficiency, and savings of €36,000 a year on their energy costs. The array can produce 90 megawatt hours per year, store 30kW of Energy per day saving 35 tonnes of CO2 per year, or 875 tonnes of Carbon Emission over the lifetime of the Solar PV array.

THE PROJECT

ATC Logistics recently built a brand new HQ in Baldonnel, which have a perfect East /West facing roof space with plenty of capacity. They also had space on their low voltage distribution board that they could tie into.

Veep Energy installed nearly 200 x 450W Tier 1 Qcell PV panels and two SMA 25 kW inverter and one 30kW of Huwaei LUNA Battery and PV Storage System in an East / West Configuration. This means that ATC Solar PV system will produce approx 50kW peak all day in the summer months, which lower the energy generation curve, however extend the hours of generations and maximizing the self consumption.

FAQS

Why is an inverter needed?
Inverters are convertors. Electricity comes out of your panels as direct current DC. This goes into an inverter which changes it to AC which is the power that is used in factories.

Why a battery needed?
A Solar Batterry, allows customer to store the generated electricity for later use. For Example, when the Solar pv system stop producing power around 6pm, the fully charged Li-ion batteries will provide sufficient power for the Building energy needs for up to 6 hours. This maximizing the use of the on site green energy, while minimizing the fossil based energy purchase from the grid.

Why are rooftop solar arrays easier?
Rooftop solar is the easiest to get as there is the least amount of issues. Ground mounted solar requires a geotechnical survey which is more onerous and the array takes up valuable space. If you opt for ground mounted solar, we manage all the ESB grid permissions, and applications to EirGrid. We install a G10 relay that prevents power going back to the grid if there is a power cut. This protects any technicians.

Why East / West?
If a 90kW Rooftop Solar PV system installed on one side of the roof. e.g: South facing, then the pv array will generate up to 90kW Peak energy during summer months, while the customer based load is lower,e.g 60kW peak the excess energy will be spilled to the grid.
With an East / West Configuration, only one side of the Array will work on its Peak power, this allow the extend the hours of energy generation, which means the customer have more time to use the generated green electricity.

LET'S TALK

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