



GATWICK AIRPORT'S CARBON COMMITMENT IS OFF TO A FLYING START



Airports are better known for their environmental battles than their commitment to green energy, yet a large portion of Gatwick Airport's 32 million annual passengers are likely to take off with a slightly different perspective after its busiest runway became home to an array of solar panels.

Situated a mere 150 metres away from one of Europe's most frequently used landing strips, a 50kW solar installation now sits quietly pumping out enough renewable energy to cut 25 tonnes of Gatwick Airport's carbon emissions each year. The system, completed by Orta Solar on December 7 last year, is the first airport installation of its kind in the UK.

The project was initiated by Joe Attwood, previously Gatwick's Sustainability Manager, and was supported throughout by Gatwick's Chief Executive Officer, Stewart Wingate. Both the Civil Aviation Authority and the National Air Traffic Service were involved and were consulted extensively to ensure that issues surrounding ground radar and potential glare were not a problem to the airport's safe operation.

Orta also had to go through six months of leasing, warranties, power purchase agreement (PPA), construction agreement, metering agreement, permits to work and G59

witnessing paperwork, due to the distinctive location of the project.

Orta Solar's Managing Director, Nick Pascoe, said: "Given the sensitive nature of the location of this solar installation there was a long list of parties interested in witnessing how its development construction and operation would interface with a commercial airport environment.

"Another unique feature of the system is that it is connected at 3-phase low voltage transformed up to 11kV to hook into Gatwick's high voltage private wire electricity network. The onsite team at UK Power Networks were closely involved throughout the system construction and connection lending great support throughout and it posed a few challenges for Ofgem during the FIT registration process."

The renewable electricity generated by the system is purchased directly by Gatwick Airport under a PPA with Blue Energy, which financed the system, and consumed onsite. The feed-in tariff payments are supplied by Good Energy and paid directly to the Blue Energy Co.

The PV system is a forerunner to Gatwick's longer term ambition to further reduce its carbon footprint by a combination of measures including onsite power generation.

"For a long time Gatwick Airport Ltd has been working hard to increase its sustainability and adding 100 percent carbon free electricity generation into our operations is a positive step. Although only at the 50kW trial stage at present, the system will save 25 tonnes of CO₂ on our operational carbon footprint per annum," explained Attwood.

"The system breaks new ground regarding the acceptance of airport-based solar in the UK and all involved have learned a lot regarding challenges and solutions specific to the location. We're already speaking with other leading airport groups in the UK about bringing solar PV into their operations," Pascoe concluded.

Project Specifications

Location:	Gatwick Airport
System size:	50kWp
Installer:	Orta Solar
Modules:	DeiSol 236W
Inverters:	Danfoss Triple Lynx 15kW
Annual energy generation:	~40,000 kWh
Annual CO ₂ reduction:	45 tonnes