

# GATWICK FLYING HIGH TOWARDS NET ZERO AVIATION



Gatwick Airport Limited (GAL) reduced energy consumption by over 9% and carbon emissions by over 1,600 metric tonnes since installing iVolt voltage optimisation system.



Gatwick Airport installed iVolt units as part of a low voltage upgrade project that was completed in December 2012. The project consisted of two 800A/528 kVA units installed on C1 and C2 sections of the South Terminal. The C1 and C2 sections had an annual energy consumption of 3,597,000 kWh. The iVolt units, which are manufactured in the UK, are advanced voltage optimisation (VO) units that lower a building's incoming power supply to the most efficient level, reducing power consumption, electricity bills, and carbon emissions by up to 20%.

Unlike other VO systems on the market, the iVolt units feature patent-pending technology that enables users to see the savings they are making directly through voltage optimisation, at any given time. This Intelligent Real Time

Energy Monitor is an industry first and sets the iVolt unit apart from its competitors.

The iVolt system works by adjusting the incoming voltage to ensure that the output is always fixed at 220V (+/- 1.5%), the level at which electrical equipment is designed to operate most efficiently. This results in a reduction of energy consumption by up to 20% and can save up to 30% more than fixed voltage reduction products. The iVolt units also boast advantages over other intelligent/variable systems as they provide clients with the ability to see their return on investment with accuracy and in a short period of time.

As a result of the installation of iVolt units, Gatwick Airport Limited (GAL) has seen a significant reduction in their energy

at a glance

## GATWICK AIRPORT LIMITED



**283,162.4**  
TOTAL ENERGY  
SAVED (MWh)



**3x800A**  
IVOLT SIZE (x2)



**18/12/2012**  
INSTALL DATE



**31**  
ROI ACHIEVED  
(MONTHS)



**1,619,272**  
CO<sub>2</sub> EMISSIONS  
REDUCED (kg)



**7.82**  
ENERGY  
SAVED (%)



INFORMATION CORRECT AS OF 20/02/2023



consumption and carbon emissions over the years. Both units have averaged 7.82% since installation 9% in kWh consumption which in turn has saved substantial energy costs. This reduction in energy consumption also translates to a reduction in carbon emissions of 1,619 metric tonnes. This is equivalent to taking approximately 31 cars off the road annually, or the carbon sequestered by over 1,800 tree seedlings grown for 10 years. This is a significant step towards GAL's goal of reducing their environmental impact and becoming more sustainable. Additionally, the savings in energy bills will have a positive impact on GAL's bottom line. The iVolt system has not only reduced the energy consumption and carbon emissions but also protected the electrical equipment by

stabilising the voltage, which improves the lifespan of the equipment and reduces the need for maintenance and servicing in the long run.

*The iVolt units have been running faultlessly.*

*Construction Terminal Projects Team at GAL*

### For more information on iVolt:

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The iVolt® was designed in the UK and production takes place at its facility near Heathrow Airport. The company is part of the global Sollatek group and is accredited to ISO9001:2015

iVolt® offer a vast range of product sizes, ranging from 63A to 3,000A and above in both single and three phase, with a number of installations having been completed throughout the commercial, retail, manufacturing, leisure and public sectors.

**iVolt®**  
Intelligent Power Optimisation