

IVOLT HAS CHILLED COSTS AND BOOSTED QUALITY FOR FOOD PRODUCTION



Imagefarm's installation of the iVolt achieved energy bill savings of £9,000 p.a. and improved power quality to their 24/7 factory with varied loads, resulting in a potential three-year return on investment.



In 2011 bosses of Imagefarm, a food production facility, successfully implemented a strategy to tackle the problem of rising energy costs while improving the lifespan of their machinery. The company installed an iVolt voltage optimisation unit, which initially resulted in a 15% reduction in their electricity bills. With an annual energy bill of over £60,000, this represents an impressive saving of around £9,000 per year. The factory runs 24/7 and uses two main 500kVA transformers. As such, the energy savings brought about by the iVolt unit are particularly impressive.

Andy Bowers, the Operations Manager, stated that choosing the iVolt system has proved to be a "win win" for the company. When installed, they expect to recoup the cost of the

unit within three years, which in itself was an excellent return on investment and when this was achieved, the company was even more impressed. He explains that the company looked at a variety of options for cutting costs, including voltage optimisation, and decided on the iVolt system in particular because it is the only one that allows them to monitor accurate savings in real-time. Additionally, they were attracted to the long-term benefits that the system would have on their equipment.

Before the installation of the iVolt unit, a full three-phase power quality survey was carried out over a week. This survey showed significant variations in the incoming mains, with voltage levels between the three phases varying from 236V to 250V. Surges and spikes were also

at a glance

IMAGEFARM



457,497
TOTAL ENERGY
SAVED (kWh)



3x600A
IVOLT SIZE



17/05/2011
INSTALL DATE



27.6
ROI ACHIEVED
(MONTHS)



66,949
CO₂ EMISSIONS
REDUCED (kg)



8.7
ENERGY
SAVED (%)



INFORMATION CORRECT AS OF 06/04/2023



identified as a problem. However, following installation, the iVolt unit substantially improved the power quality of the factory. It balanced all three phases independently and brought them to 220V (+/- 1.5%) with a maximum variation of 3% between one phase and another. This is compared to up to 16% beforehand.

The iVolt system is a variable voltage optimisation unit, which is necessary for Imagefarm's operation due to their varied loads from motor equipment, lighting, and refrigeration. It achieves 30% more savings than a fixed reduction unit, which reduces the return on investment significantly. Additionally, a manual by-pass was installed to allow easy future integration with a diesel generator as they require more power capacity than their utility provider - EDF - could supply.

Finally, Andy emphasises the environmental benefits of the iVolt system, stating that the company wants to reduce its carbon footprint and be as green as possible. He believes that in the future, customers will start to demand this more and more. While there is a cost involved

in installing new technology, the iVolt system looks like a win-win situation for Imagefarm, as early indications show savings in excess of 15%, meaning it will have paid for itself within three years. By regulating the power supply to their machines and eradicating any peaks and troughs, the company hopes to reduce service costs and prolong the lifespan of their equipment, which will ultimately save them money.

The iVolt was a win win for us as early savings were exceeding of 15% which means it paid for itself in three years, but since has reduced to nearly 9% - still very significant given we have had other energy saving solutions installed.

*Andy Bowers
Operations Manager*

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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