VOLTAGE OMPTIMISER-POWER VOPs

Viridor – Bolton TRF

Viridor

Project Summary

Installation of an VOP1800i VOLTAGE Power Optimiser with TrueBypass switch and integral Power Factor Correction into Viridor Waste Recycling Bolton.

9% average power (kVa) reduction achieved by the VO equating to a financial saving of £212,852 per year, with a project payback of 3.6 months!

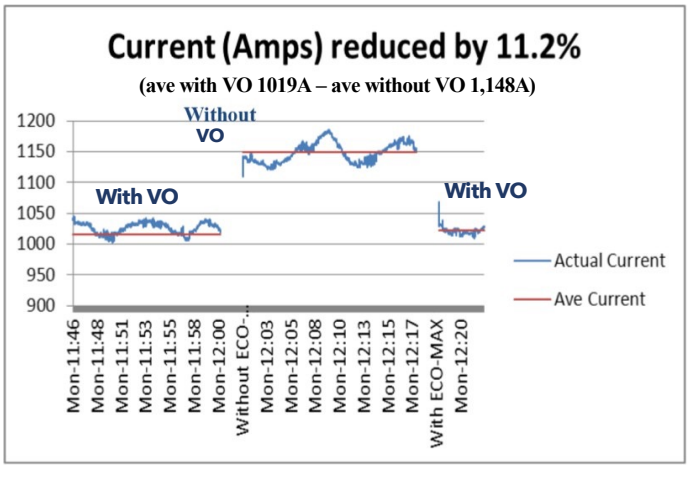
The Bolton TRF was looking for viable ways to make substantial energy savings. One of the technologies considered by the onsite engineering team was power optimisation offered by us.

Voltage optimisation and power factor correction offer two different, but complementary power saving techniques.

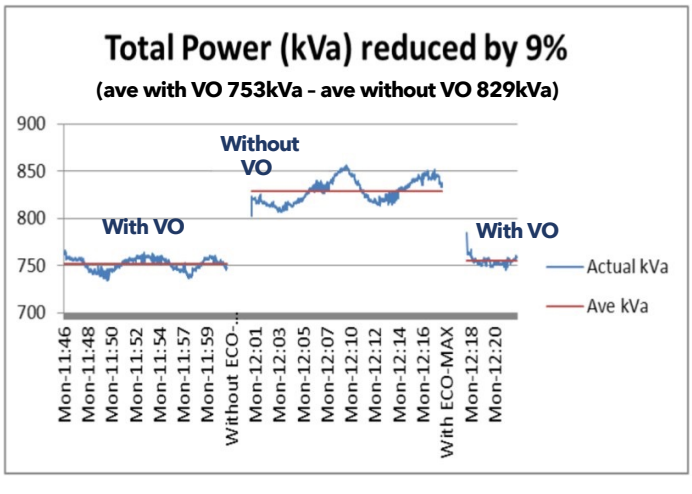
Voltage optimisation directly reduces the amount of power drawn by the connected equipment by supplying it at a voltage nearer to its design voltage, whereas Power factor is a way of describing how efficiently electrical power is consumed.

The installation of a VOP combined voltage optimisation and power factor correction unit reduced the total amount of power drawn which translated into additional generator export revenue for the site.

Prior to installation a detailed site survey was carried out together with datalogging to obtain base information. The site was then logged again following installation and comparisons made. The results of which are indicated on the graphs shown.



The graph above shows the reduction in current of 11.2% with the VO in operation. This equates to a 9% reduction in total power drawn from the network (see graph below), delivering both environmental and financial benefits to Viridor.



Energy & Financial Summary of Project

Reduction in consumption per year	**548,251 kVAhrs**
Reduction in electricity cost, per annum	**£ 212,852**
Total project cost	**£ 63,436**
Payback period	**3.6 months**
Return on investment	**335%**
Reduction in $C0_2$ emissions, per annum	**288 tonnes**