

Reliable and cost effective Voltage Optimisation Solutions



Home of Richard Wilson (Dencol) Ltd
and Power and Distribution Transformers Ltd

We offer Voltage Optimisation solutions that are based on your sites specific needs.

Voltage Optimisation is an energy-saving technique that systematically reduces the supply voltage to a site in order to reduce energy losses in equipment.

We offer Voltage Optimisation solutions to suit your specific power needs: From our super efficient supply transformers, **Wilson e2** (MV applications) to our **Wilson VO** Voltage Optimisation units (LV applications), our engineers are dedicated to help provide the most efficient and cost effective solution for your specific needs.

The result: Reliable and cost effective solutions that allow you to micro manage your own power supply.



WILSON
e2 TRANSFORMER

You operate your own transformers - MV applications (typically 11,000V)
The Wilson e2 transformer comes with a unique extended tapping range allowing you to adjust site Voltage without the need for costly additional equipment.

Wilson e2 plus – The smart solution

Wilson e2 plus comes with an automatic voltage regulator that operates on load tap changers to address fluctuations in supply and provide a constant (+/- 1.25%) output voltage.

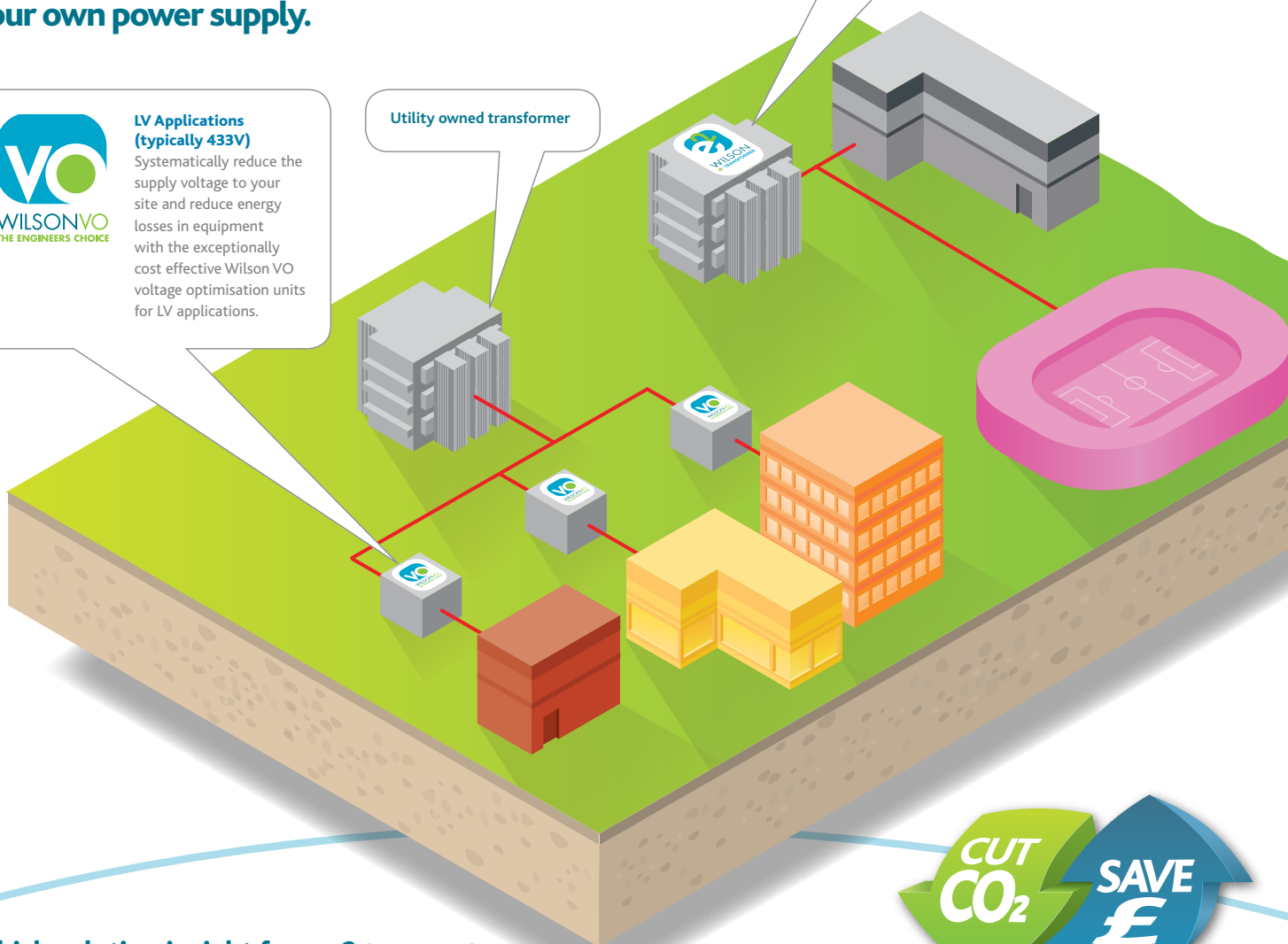
Incorporating amorphous core technology, the Wilson e2 transformers have the lowest combined transformer losses offering substantial additional energy savings and reduced operating costs.



LV Applications (typically 433V)

Systematically reduce the supply voltage to your site and reduce energy losses in equipment with the exceptionally cost effective Wilson VO voltage optimisation units for LV applications.

Utility owned transformer



Which solution is right for me? See page 2 →

Which solution is right for me?

You operate your own supply transformers: MV applications



Your solution: Wilson e2

Let the UK's most efficient distribution transformer help transform your energy costs and CO2 emissions.

Our highly efficient Wilson e2 range of amorphous core distribution transformers come with an additional tapping range at no extra cost. This enables you to optimise voltage supply from 415V to 380V according to your site's needs wherever your incoming supply is at medium voltage without the need of additional equipment.

Apart from being a particularly cost effective way of optimising site voltage, the transformer will integrate smoothly with your installations without the risk of disrupting existing systems and bring the additional benefit of lowest combined transformer losses.

Wilson e2 benefits

- Two in one solution
- Extremely cost effective
- No disruption to existing systems
- Operating costs lowered by up to 20%



Need a smart solution?: Wilson e2 plus

Where supply to site fluctuates or a constant (+/- 1.25%) output Voltage is required the Wilson e2 plus transformer comes with an automatic voltage regulator that operates on load tap changers to provide you with stabilised site Voltage.

Your supply transformer is owned by the utility: LV applications



Your solution: Wilson VO

Cost effective voltage optimisation equipment - *the engineers choice*

Wilson VO units systematically reduce the supply voltage to a site in order to reduce the energy losses in equipment and suppress the harmonic components that often occur in supply.

Developed to provide exceptionally cost effective voltage optimisation solutions for LV applications, the Wilson VO units are especially suitable for companies with no MV supply and operating without transformer equipment.



Wilson VO benefits

- Operating costs lowered by up to 20%
- Equipment life prolonged and maintenance reduced
- Payback typically achieved within 18 months
- Lower CO2 emissions



How Voltage Optimisation works

Voltage Optimisation (VO) is a term used to refer to the energy-saving technique of reducing supply voltage to a site in order to reduce energy losses in equipment.

Voltage Optimisation has evolved as an energy saving technology because the voltage supplied to many sites in the UK is much higher than actually required.

The voltage of electricity supplies throughout Europe has been harmonised to 230V ± 10%, bringing statutory supply limits to 207–253 Volts. In the UK, the statutory supply limits have not yet been fully harmonised, with a tighter tolerance still in force: 230V +10%/-6% (216–253 Volts). Today, the average voltage in the UK is still around 242V. Because most equipment operated in the UK is rated

at 220V a large number of sites are in effect being supplied a higher voltage than needed.

Operating equipment at a voltage higher than really necessary can lead to excessive energy losses in the form of heat and reduce the life expectancy of plant.

Voltage Optimisation provides a solution to this problem and can help reduce energy consumption, associated CO2 emissions and electricity costs."

For further information, contact us on:

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