

ECO-MAX Voltage Optimisers



Prepared By: Rachel Greenwood
Contact Number: 0114 293 9935
Email: rachel.greenwood@gwenergy.co.uk
Our Ref: 170316-1541-rg

GW Energy Ltd
ECO-MAX Works
Orgreave Road
Sheffield
South Yorkshire
S13 9LQ

Customer: A Company

Your Ref: MPAN 142
Date: 26 April 2016

Dear Sir/Madam

Thank you for giving us the opportunity to provide a business case for the installation of ECO-MAX Optimisation equipment at the above premises.

ECO-MAX Optimisers carefully reduce your supply voltage, which results in immediate quantifiable energy savings. The reduced voltage is also kinder to your electrical equipment, reducing stresses caused by excessive heat and vibration. This will make your equipment last longer, resulting in fewer replacements, which will reduce your ongoing maintenance costs.

In addition to these benefits and because of their unique design, ECO-MAX Optimisers will also provide you with a degree of phase voltage balancing, harmonic filtration, power factor correction and total protection against harmful voltage transients (up to 25,000V) which can damage your electrical equipment.

Contrary to what some of our competitors say, voltage optimisation may not yield energy saving on all your electrical equipment. For example, high frequency lighting, IT equipment, motors with variable speed drives and thermostatically controlled electric heating is unlikely to yield high levels of energy saving. An estimation of these types of equipment has been made in our calculations based on your type of business and the degree of energy saving measures you have already undertaken.

Projected Annual Savings

Annual consumption provided: 397,795
Annual cost provided: £37,394.59
All inclusive electricity tariff p/kWh: 9.40

The savings shown below are based on reducing your existing voltage by approximately 18.9V (-8%)

	Anticipated Saving	Best Case Saving
Percentage of kWh savings:	11.5%	12.3%
kWh saving:	45,826	48,881
Kg of CO2 saved:	24,040	25,643
Reduction in CRC tax payments:	£288.48	£307.72
Reduction in kWh charges:	£4,307.86	£4,595.05

CRC tax savings are based on £12/tonne CO2

ECO-MAX Optimisers are always more cost effective when sized to your maximum demand rather than the size of your electrical supply, however this may restrict any future expansion plans you have. Because of this, you may feel that sizing your ECO-MAX Optimiser to your electricity supply is more prudent, despite this being more expensive. Both options are detailed in this report.

Equipment Specification & Business Case - Based on your maximum demand

The maximum demand shown on the billing information provided is 112 kVa which equates to approximately 156 Amps/phase.

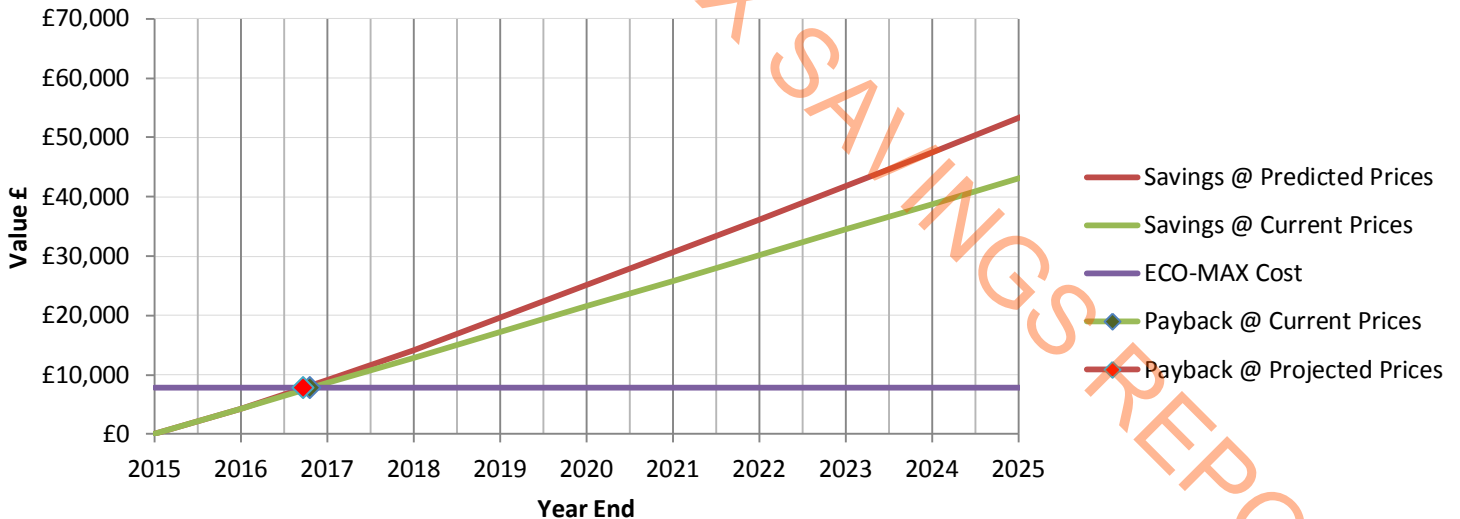
Model Type: ECO-MAX-COMMERCIAL ("BrownOut" Under Voltage Inhibit)
 Model Rating: 200Amp/143kVa - (which allows 22.0% for future expansion)
 Model Number: EMC200i
 Equipment Warranty: 5 Years

Equipment Cost: £6,298.95
 Estimated Installation Cost: £1,440.00
 Estimated Delivery Cost: £55.00
 Total Investment: £7,793.95

The estimated delivery and installation costs shown above are subject to a site visit. All prices exclude VAT at the current rate.

Payback At Anticipated Saving: 21.7 months
 Return On Investment: 55.3 %
 Payback At Best Case Saving: 20.4 months
 Return On Investment: 59.0 %

As we all know electricity prices are set to increase over the coming years, the graph below shows the effect of predicted prices increases on your savings and payback. These figures are based on the Department of Energy and Climate Change (DECC) central estimates of growth and fossil fuel prices.



Based on your anticipated saving percentage (11.5%) and future increases in electricity prices, your payback would fall from 21.7 months, to 20.7 months, and you would save an additional £11,880.71 over next ten years.

Note: All of the payback figures shown above exclude any additional CRC tax or maintenance savings.

Equipment Specification & Business Case - Based on the size of your electricity supply

Your existing electrical supply is rated at 400 Amps/phase

Model Type: ECO-MAX-COMMERCIAL ("BrownOut" Under Voltage Inhibit)
Model Rating: 400Amp/288kVa
Model Number: EMC400i
Equipment Warranty: 5 Years

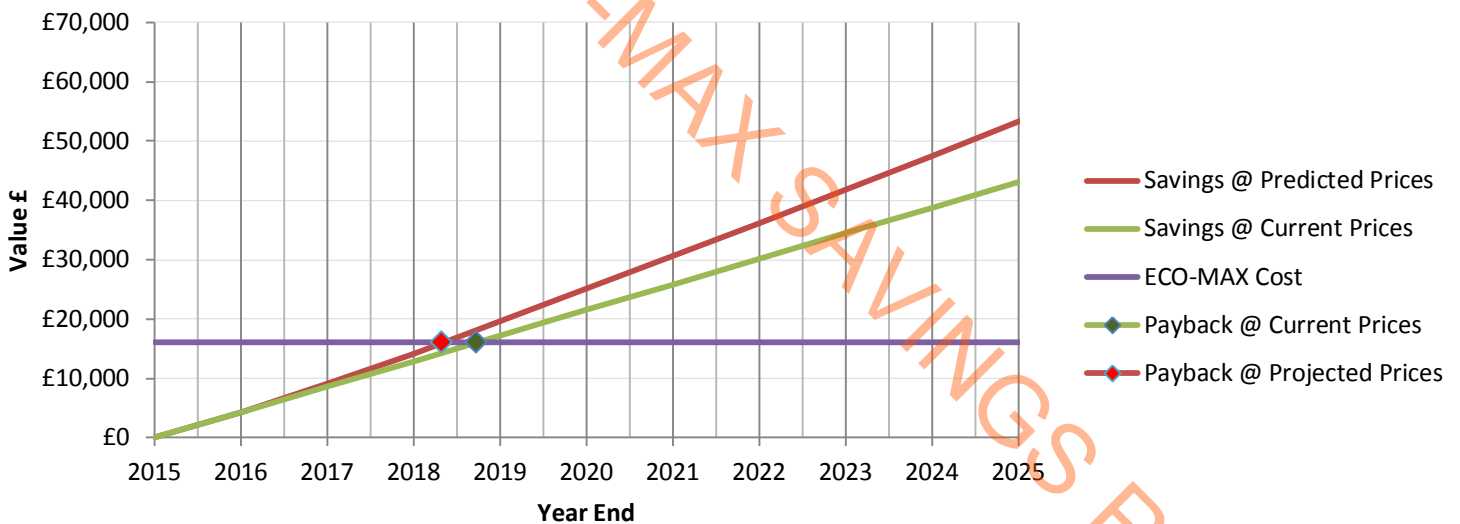
Equipment Cost: £10,498.95
Estimated Installation Cost: £5,490.00
Estimated Delivery Cost: £55.00
Total Investment: £16,043.95

The estimated delivery and installation costs shown above are subject to a site visit. All prices exclude VAT at the current rate.

Payback At Anticipated Saving: 44.7 Months
Return On Investment: 26.9 %

Payback At Best Case Saving: 41.9 Months
Return On Investment: 28.6 %

As we all know electricity prices are set to increase over the coming years, the graph below shows the effect of predicted prices increases on your savings and payback. These figures are based on the Department of Energy and Climate Change (DECC) central estimates of growth and fossil fuel prices.



Based on your anticipated saving percentage (11.5%) and future increases in electricity prices, your payback would fall from 44.7 Months, to 40 months, and you would save an additional £11,880.71 over next ten years.

Note: All of the payback figures shown above exclude any additional CRC tax or maintenance savings.

Placing an order....

If you would like to proceed with this energy saving opportunity then please return your official purchase order. Only after we have received this along with any applicable deposit payments can we schedule your ECO-MAX optimiser for assembly and arrange a pre-start meeting to finalise the details of the delivery and installation process. The lead time for equipment is normally 4-8 weeks dependant on model and rating.

Please contact myself by phone, 0114 293 9935 or email, rachel.greenwood@gwenergy.co.uk if you have any questions regarding this energy saving opportunity or wish to discuss how to proceed.