



EcoGreen Hub
Energy Saving Solution



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EcoGreen Hub Company Profile

WE ARE SPECIALISING IN:
GREEN PRODUCTS | ENERGY SAVING CONSULTATION & SOLUTIONS

Introduction

We believe that Energy Efficiency is the single most important future source of energy. Not only is it currently the most effective way to combat rising energy prices and increasing supply demands – it is probably the most important response to one of the the biggest threat humans have ever faced...Climate Change.

As the threats presented by climate change become ever more proven, there are countless excellent global initiatives in place researching and developing alternative energy sources that will, hopefully, lead to the world's economies becoming less reliant on harmful types of energy generation.

However, one important source of energy is too often overlooked – energy efficiency, we must get more from less. Population levels are projected to increase from 6.5 billion today to 8.3 billion by 2030. At this rate of growth, the world's demand for energy will have increased by 53%, elevating global CO2 emissions by 55%. Energy efficiencies in all walks of life will help reduce the effects of climate change, and commerce and industry can make a significant contribution by using the best available technologies to reduce the amount of energy needed to operate facilities.

We are at the forefront of Energy Management, targeting significant reductions in client energy consumption and cost, without inhibiting performance. This is, of course, highly desirable in the current economic climate. We kept abreast of the latest energy saving incentives, often government backed, and can tap in to a global network of professionals from within the industry to ensure our customers realise the benefits of these initiatives through the implementation of the very best energy saving strategies and technology.

Today, **EcoGreen Hub** as a company committed to provide viable cost and eco-effective building solutions to make homes and commercial industries more comfortable and energy efficient. We offer a unique range of Energy Saving Products & Solutions that could **save you up to 40%** of your energy costs.

We specialise in providing sustainable solutions for the energy saving in lighting, air conditioning, refrigeration and electric motors by using technologies and products from the U.S.A. and United Kingdom. We are proud to be a member of Energy Saving Association (ESA) and all the products are proven by UL (*Underwriters Laboratories - is a safety consulting and certification company headquartered in Northbrook, Illinois*) and with CE marking (*It states that the product is assessed before being placed on the market and meets European Union safety, health and environmental protection requirements*).

With a team of fulltime installers and technicians supported by highly efficient administration and management, our mixture of experience, youthful energy and total commitment to quality makes eco options the economical and eco-logical choice for you.



Our Mission

EcoGreen Hub support a greener work environment. We are dedicated to contribute to a sustainable future for our planet through:

- Reduce consumption, waste and pollution.
- Reuse and recycle everything we can.
- Conserving energy and other natural resources.
- Compliance with all environmental regulations.

Our Vision

To be a leading company in the world to provide viable cost and eco-effective building solutions to make homes and commercial industries more comfortable and energy efficient.

Towards that end, we will pursue processes that are designed to minimize waste, maximize efficient utilisation of materials and conserve resources, in order to provide our customers products that are long-lasting with an excellent performance.

We believe that Energy Efficiency is the single most important future source of energy... in effect - it buy's us time while new and more efficient sources of power generation are being developed. That is why the urgent need for companies to act now:

- **Energy is Becoming More Expensive** – It can be one of the biggest cost factors in any company, but remember, all the money saved goes straight to the bottom-line – that's pure profit. It could also allow your businesses to become more competitive and offer better value for money to customers.
- **Saving Your Energy is Now a Moral Responsibility** – It is one of the foremost ways of tackling something we all face: climate change. When you implement a robust energy saving programme, YOU and your staff will be making a meaningful, personal contribution to thwarting this global problem.
- **Making A Corporate Commitment** – This commitment to energy saving not only empowers you to make an environmental difference; it's proven to enhance your company image too. Increasingly, investors, consumers and employees want to be in business with environmentally conscious and responsible companies.





Our Products

LED LIGHT

The World's Leading Manufacturer of LED Light for Commercial Use

We distribute the new innovative brand of LED light that is much more energy efficient than other LED lights. Our products are made for use in commercial buildings. Also, unlike any other manufacturer in the industry, our lights are **guaranteed for 20 years** and **warranty for 10 years**. Our products are made in the USA, is 100% environmentally friendly and guaranteed to be significantly more energy efficient.

What are LED lights and how do they work?

LED lights are essentially high-tech versions of LED technology that you've seen in early calculators and watches. Essentially, they are electronic devices with mini transformers, chip-sets and light-emitting diodes (LED) that converts electricity into light. They do this extremely well and efficiently, converting most of the energy consumed into light and very little into heat. On the other hand, standard incandescent bulbs convert most of the energy consumed into heat and very little into light. That is why an 8-Watt LED bulb produces as much light as a 65-Watt incandescent bulb.

Benefits

What are the benefits of replacing ordinary bulbs with the LED bulbs?

- An immediate reduction in your electricity bill.
- Less heat because LED bulbs are very efficient converting electricity into light, unlike incandescent bulbs that convert most of the electricity consumed into heat.
- LED Bulbs last a very long time, typically 100,000 - 190,000 hours (ours last even more). Incandescent bulbs usually last 10,000 - 13,000 hours.
- LED's are virtually indestructible and they don't contain mercury and other hazardous chemicals, un-like Compact Fluorescent Light Bulbs (CFL's) that need to be disposed of carefully when their life is over.
- 90-95% of an LED bulb is recyclable.

Financial Savings

What are the "real" financial benefits?

There are substantial financial benefits. The chart below shows some extremely conservative examples of savings.

Lighting	Refrigeration	Motors	Air Conditioning
Up To 80%	Up To 30%	Up To 50%	Up To 30%
ROI in year - 2	ROI in year - 2	ROI in year - 2	ROI in year - 2

Applications

- Board Rooms
- Factories
- Gymnasiums
- Hospitals
- Office Space
- Plants
- Recreational Facilities
- Schools
- Stores
- Warehouse



Advantages

Our unique lights offer the following advantages:

Made in USA – Most LED lights are made in China. But our lights are manufactured at our production facility in Mentor, Ohio.

Highest Quality – Our ruggedly constructed lights use no transformers and have the most energy efficient LED drive circuitry in the industry. Our lights produce 109 lumens per watt.

Best Warranty – Most manufacturers offer a 3 to 5 year warranty on their product. The warranty on our patent-pending lights is 10 years.

Best prices – Even though our lights are the highest quality and made in the USA, you'll always find our pricing among the most competitive.

Local representation – You always have a certified and factory trained local representative available to personally work with you throughout your project. Your order comes directly from our factory, with no imports or middle men.

Retrofit – Green your commercial building with our lighting and save money from day one. Let our representative show you a financial breakdown.



Made in USA



ENISCOPE - Real-time Energy Management System

Right now, up to 40% of your energy is going to waste. The trouble is identifying which 40%.

Energy is invisible in use. Normally, you can't see, evaluate or compare the energy consumed by the equipment you use. There's one monthly – or even quarterly – bill for everything, so any changes you make are based upon guesswork.

Eniscope is a unique energy analyzer, which plugs into your system and relays meaningful energy use data and graphical analysis locally and over the web.

Now you can see the real-time energy consumption of buildings, departments, circuits and even machines.

Eniscope combines world-class metering technology with an advanced energy network controller; putting live readings and real-time graphical logs within reach, 24 hours a day, from your desktop, laptop or mobile phone.

Log in to Eniscope's beautifully designed Energy Displays to see all the information you need in a language you understand – whether that's kW consumption, peak demand, carbon output or money spent – right now, and as an analysis of the last few hours, days or weeks.

Instantly, you can spot trends, anomalies and wastage, make informed decisions... and see immediate results from improvements you've made. You're in control.

The result? A smaller carbon footprint, better public perception **and lower energy costs.**

Benefits you could experience with an Eniscope System include:

- Identify Saving Opportunities of up to 40%
- Eliminate Out of Hours Waste
- Expose Energy Abusing Equipment
- Real-time Energy Displays Engage Users and Improve Efficiencies
- Historical Analysis Tools Help to Target Continual Reductions
- Email & SMS Alerts Accelerate Response to Excess Consumption
- Promote the Value of your Renewable Energy Investment



ACES - Air Conditioning Energy Saver

If you use Air-Conditioning to cool your building you could be wasting up to 30% of all the energy it consumes!

When switched on, typical air conditioning systems operate continuously until the room thermostat senses the desired temperature and turns the system off. As the room warms up, the thermostat switches the air conditioner back on and the cycle repeats.



Air conditioning systems are usually dimensioned to cope with the extreme cooling demands of the few hottest days of the year (plus a safety margin). However, in most operational conditions, this maximum output is not required and the system is oversized. So running the system continuously until the room thermostat switches it off means that the system operates with excess capacity most of the time.

A typical cooling cycle with excess capacity looks like this:

- When the cycle starts, the compressor pushes cooling energy into the heat exchanger which acts as an energy storage. At this stage, the system works with high efficiency because compressors operate most efficiently when fully loaded.
- In normal weather conditions, the energy storage is soon fully "charged up". From this point onwards, the compressor provides more cooling energy than the heat exchanger can take - we call this 'thermodynamic saturation'.
- Running the compressor beyond this stage does not increase the cooling effect any more. It's just a waste of energy!

This is where an ACES cuts in. Its sensor-driven software algorithms are designed to detect thermodynamic saturation and to optimize the compressor accordingly. When overcapacity is detected, ACES switches the compressor off and avoids inefficient overcooling.

When ACES switches into "saver mode", the fan keeps running and your system makes maximum use of the stored cooling energy in the heat exchanger. Once the stored energy is used up, the compressor can work efficiently again and is switched back on. The set room temperature is reached without the inefficient parts of the cooling cycle. This results in energy savings of up to 30% without compromising cooling comfort.

Benefits you could enjoy with an ACES include:

- Energy Savings of up to 30%
- Payback in Less than 24 Months
- Retrofit product to upgrade existing units
- Quick & Simple Installation
- Excellent Alternative to an Expensive New System
- Anti-Short Cycling & Power Outage Protection



Air Conditioning Energy Saver

Save Up To **30%** On Cooling Costs

LESS - Light Energy Saving System

If you have a conventional lighting set-up you could be wasting over 50% of all the energy it consumes!

Conventional lighting offers limited control of the energy it uses – in addition to excess cost this produces excess heat which damages your equipment. It is also unable to respond to occupancy changes meaning lights are left on unnecessarily. In addition, conventional lighting cannot intelligently compensate for the presence of natural daylight resulting in over-illumination – this means light is produced whether you need it or not.

The solution is LESS – An intelligent Light Energy Saving System which uses a combination of cutting-edge control technology and state-of-the-art sensors. A typical LESS installation would look like this:

Occupancy Sensors

One of the biggest energy wasters is lights being left on when a room is not in use. Major Improvements in sensitivity and reliability have transformed the primitive 'Motion Sensing' approach into high comfort Occupancy Sensing. This means your lights automatically turn on when a room is occupied and off when its vacant - so you only have light when you actually need it.

Daylight Dimming Sensors & Ballasts

In most buildings the lights are on at full intensity all day even when there is plenty of daylight available. This not only wastes energy but causes unpleasant over-lighting. LESS employs 'Daytronic' ballasts and sensors which dynamically adjust your lighting to deliver a guaranteed illumination level at all times. The control is graduated so all you notice is an improved lighting environment and lower bills.

Benefits you could experience with LESS include:

- Total Energy Savings of Over 50% Possible
- Short Payback Times
- Suitable For Retrofits or New Buildings
- Quick & Simple Installation
- Combine Savings & Comfort
- Proven in Thousands of Installations
- Stylish Design, Very Small, Elegant Integration
- Developed and Manufactured to Highest Quality Standards



Light Energy Saver System

Save Over **50%** On Lighting Costs

CUES - Chilled Unit Energy Savers

Is a 100 year old problem costing you up to 33% of the money you spend on refrigeration?

Regrettably, most refrigerators still use air temperature as the signal to control the refrigeration cycle (i.e. when the fridge starts and stops). They have been doing that for over 100 years. But we don't buy fridges to cool air. We buy them to cool food. So we should use food temperature as the signal to control the refrigeration cycle. Would that make a difference?

Absolutely! Air temperature rises far more rapidly than food temperature so refrigeration cycles are more frequent than they need to be to maintain the required temperature. The result is excessive energy consumption.

The Chilled Unit Energy Saver solves this 100 year old problem! It is a non-toxic wax food simulant contained in a protective enclosure that mimics food temperature. Once in place, the Chilled Unit Energy Saver transforms the fundamental operation of the refrigerator because it will now use food temperature as the signal to control its refrigeration cycle rather than changeable air temperature.

The effect is a more efficient refrigeration cycle, where the individual cycle lasts longer but the frequency is reduced by up to 80%. This can result energy savings of up to 33% without any compromise to food safety and quality.

Benefits of the Chilled Unit Energy Saver:

- Savings of up to 33% Resulting in Swift Paybacks
- Simple Installation with Zero Maintenance
- Increases Equipment Lifespan, Reduces Breakdowns
- Reduces Carbon Emissions
- No Compromise to Food Quality and Safety - NSF Approved



iMEC - Intelligent Motor Energy Controller

If you use electric motors without any form of intelligent control they could be wasting up to 50% of all the energy they consume.

Our iMEC (intelligent motor energy controllers) solutions have been used to help thousands of customers to eliminate waste from motor driven system and thereby reduce energy and maintenance costs along with carbon emissions.

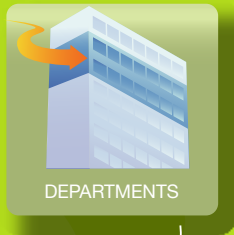
An iMEC could offer you the following benefits:

- Energy Savings of up to 50%
- Reduced Maintenance & Downtime
- Avoid Peak Demand Penalties
- Automatic Switch Off. 100% Savings!
- Precise Process Control
- Less Noise, Heat & Vibration
- Extended Motor/Equipment Life
- Reduced CO2

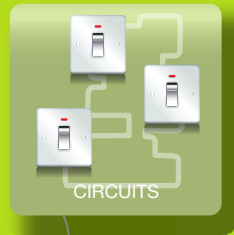




BUILDINGS



DEPARTMENTS



CIRCUITS



EQUIPMENT



8 - CHANNEL



2 - CHANNEL



1 - CHANNEL



HUB



Reduces Wear



Energy Saving



Motor Controllers



Reduced Maintenance



Prolongs Life



Refrigeration



Metering / Performance Monitoring



Air Conditioning



LED Lighting (10 Years Warranty)



Made in UK



Made in USA



US Lighting Group Malaysia

Intelligent LED Technologies