



Eco Elite provides a one-stop shop service to our clients. Both private and public service clients have benefited from our support. We work with our clients to reduce their consumption and of course their energy spend.

Quality

We offer our clients a service that we believe to be second to none; we believe in quality advice and service.

Value

We strongly believe in value for money. Many services we offer are forced onto clients by legislation, and although important we realise the extra costs can affect the bottom line.

Technology

Eco Elite work with partners all over the world to offer money saving technologies that reduce your consumption and make you energy efficient.

ecoburn

- Cut your heating and hot water costs from 15 to 25%
- Save 10% when it is only 0 Degree C outside
- Pay back from 6 -12 months
- Independently tested by the BRE
- Energy savings report every 50-boiler cycle showing savings
- Reduce Dry Cycling and prolongs boiler life
- Reduce CO2 emissions
- Suitable for Gas or Oil Boilers
- Over 7000 installed nationwide.

Work with Eco Elite and take advantage of our Save & share options

A no upfront cost solution for your installation (see payment options page 6).

ECO ELITE LTD

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Cut your boiler running costs by at least 16%.

Eco Burn is a retro fit project that works with commercial premises reducing the running costs i.e. water and heating costs.

In simple terms a boiler fires between 2 temperatures, it switches on at 70 Degrees C and shuts off at 80 Degrees C, it is based on a thermal switch that means the plant does not get too hot or too cold.

The boiler heats the water in the heating loop, which will generally be around 60 Degrees

The Eco Burn allows the bottom range of the thermostat to fall on a variable basis dependent upon demand by a further 3 Degrees C to 67.

This does not affect the temperature of the heating loop, which will still remain at 60C, but it does mean the boiler will roughly be shut down for twice as long.

When the boiler re-fires it recovers the little heat it has lost quicker than the time it took to lose the heat, therefore you get a much longer cooling curve for a slightly longer burn curve to the heating system.

On average the Eco Burn saves 15% on a fixed Orifice Boiler (most are)

Q I have heard about these technologies, they are not new, what makes the ECO BURN different?

A The ECO BURN is based on technology that optimises the firing pattern of a boiler- to deliver gas/oil consumption savings by extending the cooling curve. Dry Cycling will be greatly reduced as a consequence; The Technology is patented and also holds a BRE certificate that gives you confidence in its performance.

Q I have some really old boilers that we are trying to make last, will the ECO BURN prolong the life of my boiler?

A The ECO BURN reduces the number of firings, which is demonstrated in the savings report. Typically you will see 50-100 less firings in a 24hour period and this, all other things being equal, will increase the life of your boilers, whilst also increase efficiency, you should be looking to realise 15% or more performance savings following installation.

Q I have just installed new boilers; will the ECO BURN still work?

A The ECO BURN is a boiler controller system that seeks to shut down the boiler as much as possible without effecting the heating/hot water requirements of the building. Most high efficiency boilers will still benefit from this additional control. We are able to advise on the suitability and performance savings for the ECO BURN and new boilers

Q We are undertaking a boiler replacement programme can we transfer the ECO BURN to new equipment?

A Yes, you can. We can re-arrange for the ECO BURN to be re-fitted to a new boiler.

Q How often does an ECO BURN need to be serviced?

A There are no servicing requirements from the ECO BURN; it is what is known as "Solid State Electrics".

Q How will I know the ECO BURN is saving me money?

A Every 50 cycles the ECO BURN takes itself in and out of circuit and measures the burner times on and off to calculate the actual performance savings being made during to previous 50 cycles.

The results of the last three test cycles are stored on the ECO BURN and are demonstrated in the savings report that is directly downloaded from the unit. This provides percentage fuel consumption savings that give a clear indication of the cost-savings the ECO BURN is delivering you at that particular time.

Q How long does the boiler have to be switched off for installation of the ECO BURN?

A Installing the ECO BURN takes about an hour and has no impact on the boilers normal running. The Electrical connections between the DBMU and boiler take approx. 15 minutes and during this time, the boiler will only loose minimal heat and most systems have additional boilers that can provide heat if necessary.

Q Will it work with my existing BMS?

A Yes, it is best to view the ECO BURN as an extension to a BMS; it will take the boiler enabling signal from the BMS and apply its own logic. The ECO BURN acts, for most part like a switch. When the sensor in the header i.e. the pipe connecting the output of the boilers, indicates a falling temperature it fires the boilers, we prevent that signal from reaching the boiler until a little more heat and been extracted from the boiler into the header. As we see from savings report download, boilers can often be shut down twice as long without any noticeable drop in temperature, in that way we increase the overall cycle length of the boiler, through the cooling aspect, to save fuel and money.

Q What happens when the boiler is serviced?

A When the ECO BURN is installed we supply a service label to the boiler for the attention of the service engineer, this provides information on how to service, how to fault find and how to turn the ECO BURN off and then on again when finished.

Q What Savings can I make when installing an ECO BURN?

A You should be looking to save 15% or more over the course of a year, this is based on the test data form the BRE, however some of our installations are seeing savings much higher, we will carry out a full survey to give you a true saving potential, we guarantee all our savings.

Q Will installing an ECO BURN affect the warranty on my boiler?

A No: The installation of the ECO BURN does not require any modification to the boiler.

Q What is the Warranty/guarantee of the DBMU?

A The ECO ELITE comes with a five-year warranty. The Dynamic Burner Management Unit is a solid-state electronic device and in the unlikely event of a problem, we will replace it for you.



A copy of a savings report to be supplied on request.

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3M Manchester saved around £24,000 per annum with **9 ECO BURNs** offering a 5.6 month payback

|| These savings are much more than we ever dreamed of ~ 3M ||

.....

St Monica's School saved £2,700 per annum installing x **2 ECO BURNs** offering a 12.1 month payback

|| Working with Eco Elite was very easy and they delivered on the promises they made. ||

Finance manager

.....

Raphael Medical Centre saved £12,754 per annum installing x **3 ECO BURNs** offering a 4.3 month payback

|| To date we have saved 18%, more than promised, we will 100% use Eco Elite on our lighting project. ||

Site Manager

.....

Ipswich School saved £9,585 per annum installing x **6 ECO BURNs** offering a 11.9 month payback

|| Your service to date has been very professional we would highly recommend both Eco Burn and your company. ||

Deputy Bursar

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To date there are over 7,000 installations nationwide.

The Eco Burn is truly a great product that costs very little in relation to the maximum savings on offer.

If you install one energy efficient product this should be high on your list.

Installation details/certification/ Liability insurance

- All ECO BURN installers are 17th Edition Electrical engineers
- All ECO BURN installers are GAS SAFE qualified (ACS) gas engineers
- There are no COSH substances when installing an ECO BURN
- The only waste on site is a small cardboard box; this is disposed off in a suitable recycling unit
- Employers Liability is £10 million and Public Liability is £5 million Policy number COM6621814

Site Survey

Eco Elite will carry out a full site survey, once carried out we will supply a full detailed savings report, this will be carried out free of charge.

An initial remote survey can be carried out by supplying us your boiler stock, we require, name of boilers – the KW size of the boilers and gas/oil consumption for each boiler.

A site visit will be required before installation however a remote survey does save time and allows us to give you an idea of potential savings.

Eco Elite offers a choice of payment options:

- Invoice with a 7-day payment period we offer a 5% invoice discount - if paid within 7 days
- Invoice with a 30-day credit payment, no settlement discount.

Working with Green Funders, Eco Elite can supply install and monitor your Eco Burn installations.

The funders cover all costs and enter into an agreement with the site to receive an agreed monthly fee over a given period of time; this allows the ECO Burn to be paid only from the savings it produces.

Example:

Installing x 4 ECO BURNs at a supply cost of £6,000, saving your site an estimated £6,000 per annum.

As a Save & Share customer you pay only:

£428.28 per quarter for 20 quarters (or - £1,713.12 per year)

The above offers you a positive saving of £4,286.88 a year for no upfront cash investment, at the end of the five year term you can reduce the payment to £75.00 per quarter or upgrade to new technology or simply have it removed.

£629.88 per quarter for 12 quarters (or - £2,519.52 per year)

The above offers you a positive saving of £3,480.48 a year for no upfront cash investment, at the end of the three year term you can reduce the payment to £75.00 per quarter or upgrade to new technology or simply have it removed.

Eco Elite will be happy to work out figures and savings for your individual site to suit your needs, we 100% guarantee our savings.

For the Installation of a ECO BURN

Date:

Site Location:

Customer Contact:

Customer Order No:

Overview: General Requirements

It is important that the ECO BURN is installed to a high standard with cables running in conduits, which are secured in glands. All conduits are to be secured with permanent screwed fixings, not adhesive.

The ECO BURN has the facility to produce a Savings Report by measuring the burner times in and out of circuit. It can only do this if it is not interfered with by an external control system such as a Burner Management System (BMS). Therefore, where a BMS is in evidence the ECO BURN needs to be the last connection to the burner.

The electrical supply to the ECO BURN must be a permanent uninterrupted clean supply otherwise the unit will not work correctly.

The Installer is responsible for ensuring that the unit is left working correctly; this is determined by the digital display in the ECO BURN reading 'Burning' when the boiler is firing, 'Cooling' when the boiler is cooling and 'Economy' when the cooling period is being extended.

The Installer is also responsible for applying the Service Label to the boiler so that future service engineers know what to do when working on the boiler.

The DEP Risk Assessment for the Installation of an ECO BURN should be completed prior to commencement of work.

Step 1: Risk Assessment and Method Statement

- Report to the appropriate site authority, record their name and position on the Work Ticket.
- Enquire whether the Customer has any particular Health and Safety briefings that must be attended or read.
- Complete both documents and submit them with the work ticket.
- Take any necessary action identified by the procedures.

Step 2: Preparation

- There are three different approaches to how the Control System (BMS) operates a boiler; they are:
 1. The boiler is wired through to the BMS, which effectively behaves like an on/off button and is sensed usually by a flow temperature, i.e. it takes the control thermostat out of play. This is a rare situation.
 2. The Control Panel sends a 'permit' signal to the boiler; the boiler does not have a live feed all the time.
 3. The boiler has a permanent live feed and the thermostat line provides control. This is the normal condition.
- Evaluate the external BMS or time switch control system and record on the Work Ticket. Bell the wiring to identify the BMS connections and make a record on the Work Ticket.
- Check whether the control panel has any fault lights showing, particularly water pressure switches on pressurised systems. Record on the Work Ticket and notify the Site Manager before proceeding.
- Check for on-site drawings and use them if available.
- Identify the best location for the ECO BURN, preferably on the boiler control panel. Where forced draught burners are involved, make sure that we do not impede the servicing of the boiler; if necessary the ECO BURN cable should be extended and a break facility included. All wiring must be safely secured from any serious heat source (the conduit limit is 120°C).

Step 3: Identify and Check

- Identify the boiler most likely to be firing, install the ECO BURN on this boiler first so that it can be operating whilst the other ECO BURNS are installed.
- If a Hi-Lo type, check which thermostat is controlling the boiler (normally the ECO BURN is installed on the low fire thermostat as this fires prior-to and with the high fire burner).
- Identify the thermostat settings, record on the work ticket under 'Installer's Comments' and ensure they are re-set to those positions after installation of the ECO BURNS.

Step 4: Isolate and Install

- Electrically isolate the boiler and check with a voltmeter that the boiler is isolated.
- Install the first unit on the identified boiler (Step 3) and ensure that;
- The DBMU is located on the chosen suitable panels (see Step 2),
- The ancillary rail is used where available.
- If the DBMU has to be mounted on the boiler casing cut a ½" hole immediately below it for the wiring and gland.
- Ensure the conduit (9.5mm o/d) is cut to the right length and enters the glands.
- Take the power to the ECO BURN downstream of the boiler's electrical isolator.
- If the boiler is 3-phase take the supply from the same phase as the control system, ensuring that the neutral is not carrying any current.
- Wire the white lead to the outgoing side of the control thermostat and the black lead to the burner.
- Use the copper plate and contact paste provided when attaching the sensor to **the flow pipe**.
- Do not crush sensor by applying too much pressure.
- Ensure all surplus sensor cable is neatly coiled, tied and out of sight.
- All securing tags for the conduit are to be screwed to boiler casing.
- If fitting to a forced draught burner ensure there is sufficient cable available for the burner to be serviced; if not, extend it.
- On completion of installation apply the adhesive Service Label to a prominent position on the boiler near to the ECO BURN.
- Reinstate electrical supply and run boiler.

Step 5: Commissioning the ECO BURN

- Run the boiler to ensure the digital display in the ECO BURN reads 'Burning' when the boiler is firing, 'Cooling' when the boiler is cooling and 'Economy' when the cooling period is being extended. Do not leave site without observing this.
- Check for electrical spikes during ignition of the burner. This may flash up in the ECO BURN display as Sensor Error when the supply is momentarily cut, or it may zero the unit and send it back to the start of its menu (see below). If a spike exists, install a transformer with transient suppressors.
- Put the ECO BURN in to 'Test' and check that it runs back on to 'Programme' (this is a ECO ELITE Ltd. function; a portable computer is required).

Step 6 Complete Administrations

- Complete the Work Ticket, recording all available information on the control system in the 'Installer's Comments' box.
- Return the completed Work Ticket, Risk Assessment and Method Statement to DEP Ltd.

Checklist

Ensure that you have the following;

1. Latching relay boxes (DEP supply).
2. Boxes of extra cable (6m) for spikes.
3. Conduit 9.5mm o/d.
4. Service Labels.
5. Method of securing sensor cable.
6. Work Tickets.
7. Additional extensions for cable for forced draught burner.
8. Heat Resistant ties.

Installer's Comments

Installer's Signature: Date:.....

Installer's Name (Print):.....

Signed:

Name: Dave Wyatt

Position: Director

For the Installation of the ECO BURN Unit

Site Location:

Customer Contact:

Customer Order No:

Introduction

Eco Elite is required by law to carry out Risk Assessments in compliance with:

1. The Health and Safety at Work Act 1974

Section 2 - It is the duty of every employer to ensure that, so far as is reasonably practicable, the health, safety and welfare at work of all his employees.

Section 3 - It is the duty of every employer to ensure that people not in his employment, but who may be affected by his work activities, are not exposed to risks, which may affect their health and safety.

2. The Management of Health and Safety at Work Regulations 1992 & 1999

Every employer shall make suitable and sufficient assessments of the risks to the health and safety of his employees to which they are exposed whilst they are at work and the risks to health and safety of the persons not in his employment arising out of or in connection with the conduct by him of his undertakings.

And with regard to;

1. The Work at Height Regulations 2005 as amended by the Work at Height (Amendment) Regulations 2007.
2. Control of Noise at Work Regulations 2005
3. Electricity at Work Regulations 1989

Risk Assessment – The Installation of the ECO BURN Unit

Preliminaries on Site

Before entering the Plant-Room to commence work the DEP installer will ensure and confirm below that;

The appropriate authority has been notified	Yes	No
The appropriate signing-in procedures have been followed	Yes	No

And identify the name of the person to be contacted in the event of an Emergency.

Name of Emergency Contact

Hazard	Risk	Action Taken	Risk level	Further Action Taken Installer Comments
Unfamiliarity with the site	The installer may suffer injuries if they are unfamiliar with the hazards on site	The installer will request a briefing on the Customer's Health & Safety arrangements specific to the site and these arrangements will be adhered to. Any concerns will be raised with the Plant-Room supervisor and addressed before commencing work	High / Medium / Low	
Asbestos	Exposure to asbestos fibres can result in serious lung disease	The installer will check with the Plant-Room supervisor if there is any risk of exposure to asbestos fibres	High / Medium / Low	
Hazardous substances	Certain chemicals may cause skin irritation on contact or breathing difficulties if inhaled	The installer will check with the Plant-Room supervisor if there are any hazardous substances stored in the plant-room	High / Medium / Low	
Fire	If trapped during fire the installer could suffer fatal injury from smoke inhalation or burns	The installer will ask the Plant-Room supervisor for information on the fire and evacuation policy before work begins	High / Medium / Low	
Working at Height	Injuries may be sustained if the installer falls from height	If required to work at height the installer will consult with the Customer's Health & Safety representative or Plant-Room supervisor to agree a safe system of work before work begins. Any equipment (ladders, harness, etc.) will be inspected before use to ensure that it is in good condition and used in a safe, secure and responsible manner	High / Medium / Low	
Lighting	Poor lighting may result in work errors or accidents	The installer will ensure that lighting is adequate to carry out duties safely.	High / Medium / Low	
Head high dangers	Head injuries can be sustained if the head is hit on other plant located near the boiler	The installer will survey the working area and identify any sharp or solid objects, and if any such hazards are identified adjacent to the area head protection will be worn	High / Medium / Low	
Slips, trips and falls	Injuries may occur if access is obstructed by objects/debris or if there are spillages	The installer will ensure that: <ol style="list-style-type: none"> 1. Access to the work area is kept clear and that any objects/debris that obstruct the path of work are moved 2. Floors are in good condition and dry 3. Any spillages are cleaned up 4. There is good lighting 5. Installer wears protective non-slip footwear 	High / Medium / Low	
Temperature	Excessive heat from unlagged plant-rooms may lead to dehydration; well-insulated plant-rooms may be very cold	The installer will ensure that adequate fluids are consumed while working in overheated plant-rooms and that sufficient warm clothing is worn in cold plant-rooms.	High / Medium / Low	

Noise	Plant-Rooms can be very noisy when boilers or other plant are operating. Excessive noise can cause hearing damage and other health problems.	Installer has been provided with ear defenders and instructed to wear them when feeling any level of discomfort due to noise. Particular note should be taken where the Customer has identified the area as an ear protection zone.	High / Medium / Low	
Electrical	Shock and burns injuries may be caused by improper use of electricity	<ol style="list-style-type: none"> 1. The installer is a qualified NICEIC 17th Edition or Gas Safe operative 2. The boiler will be electrically isolated and checked using a Volt stick/meter 3. If in any doubt, check isolation procedures with the Plant-Room supervisor 4. The work area will be kept dry 	High / Medium / Low	
First Aid	Any injuries need to be addressed to protect health and also to prevent unnecessary delays to the installation	Installer has been provided with a first aid kit and will report any accident to the Customer's Health & Safety representative	High / Medium / Low	
Working alongside other people	Accidents can be caused when people are not aware of other people working in the vicinity	The installer will be aware of other people and considerate to them carrying out their tasks, and will, in particular, ensure that they are informed of the requirement for the electricity to remain isolated while they are carrying out the installation	High / Medium / Low	
Waste	Waste materials can cause obstructions if not removed and there are environmental implications on disposal	The installer will remove all packaging/debris on completion of the work. All materials will be recycled where possible or disposed of responsibly.	High / Medium / Low	

Installer's Comments: **Please identify any concerns or further action recommended to the Customer regarding this site**

Installer's Signature Name (Print) Date

Director's Signature Name (Print) Date

Notes
